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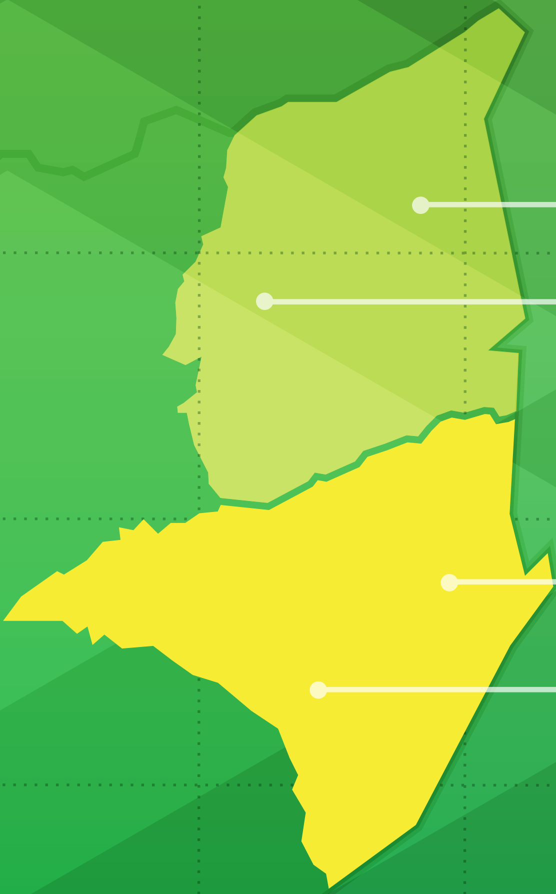

A rapid geospatial analysis of Nampula and Cabo Delgado Provinces in Mozambique

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A rapid geospatial analysis of Nampula and Cabo Delgado provinces in Mozambique

By Rashed Jalal, Qiyamud Din Ikram, Fatima Mushtaq, Amit Ghosh, Josselin Gauny, Daniele Barelli, Doug Muchoney, Khalid Cassam, Marco Falcone and Matieu Henry

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Contents

Acknowledgements **v**

Acronyms and abbreviations **vi**

Executive summary **vii**

1 Background **1**

2 Objectives **1**

3 Data and methodology **2**

3.1 Geographic scope 2

3.2 Preparation of land cover and land cover change maps 3

3.2.1 Legend and training data 3

3.2.2 Satellite and ancillary data 4

3.2.3 Image segmentation 5

3.2.4 Classification 5

3.2.5 Land cover change map 6

3.3 Harmonization of forest inventory data with land cover and biomass change analysis 7

3.4 Drought assessment 7

3.5 Statistics and map preparation 8

4 Results **9**

4.1 Changes in agriculture, forest and biomass at admin level 9

4.1.1 Change in agriculture area 9

4.1.2 Change in forest area 10

4.1.3 Change in biomass 12

4.2 Drought at admin level 14

4.3 Population exposed to loss in agricultural land, forest and drought 16

4.4 Change in biomass in and around internally displaced person(s) settlements 20

5 Recommendations **21**

6 References **22**

Appendix

1. Change in agriculture, forest and biomass from 2016 to 2021 and draught in 2021 by Posto, District and Province 23
2. Change in agriculture, forest and biomass between 2016 to 2021 and agricultural draught in 2021 by Posto 29
3. Change in biomass between 2016 to 2021 by internally displaced person(s) settlements 152

Figures

1. Methodological approach 2
2. Delineation of geographic areas for the assessment 3
3. Mozambique land cover map of 2016 4
4. Change in agricultural area from 2016 to 2021 at admin level 3 (Posto) 10
5. Change in forest area from 2016 to 2021 at admin level 3 (Posto) 11
6. Change in biomass from 2016 to 2021 at admin level 3 (Posto) 13
7. Top ten most affected Posto due to forest loss, agricultural land loss and drought 14
8. Drought affected agricultural area in 2021 at admin level 3 (Posto) 15
9. Top ten most affected Posto considering exposed population to forest loss, agricultural land loss and drought 19

Tables

1. Features considered in the classification process 5
2. Biomass per land cover class 7
3. Top ten most affected Posto due to loss of agricultural land 9
4. Top ten most affected Posto due to loss of forest area 12
5. Top ten most affected Posto due to drought in agricultural land 16
6. Top ten most affected Posto due to population exposed to agricultural land loss 16
7. Top ten most affected Posto due to population exposed to forest loss 17
8. Top ten most affected Posto due to population exposed to drought in agricultural land 18
9. Top five most affected areas within 5 km from internally displaced person(s) settlements due to biomass loss 20
10. Top five most affected areas within 5 to 10 km from internally displaced person(s) settlements due to biomass loss 20

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Acronyms and abbreviations

EVI	Enhanced vegetation index
FAO	Food and Agriculture Organization of the United Nations
GEE	Google earth engine
GRVI	Green red vegetation index
LCML	land cover meta language
LULC	Land use and land cover
MNDWI	Modified normalized difference water index
MSI	Moisture stress index
NDRBI	Normalized difference red-blue index
NIR	Near infrared
NFI	National forest inventory
reNDVI	Red-edge normalized difference vegetation index
RF	Random forest
SAVI	Soil adjusted vegetation index
SNIC	Simple non-iterative clustering
SRTM	Shuttle radar topography mission

Executive summary

The Republic of Mozambique is one of the most vulnerable countries in the world to weather variability and natural and climate hazards. In terms of economic development, Cabo Delgado and Nampula provinces, located in the northernmost part of the country, are the most unstable and far behind than other provinces in Mozambique. Despite the economic instability, escalating conflicts and insurgencies, along with climatic shocks, are significantly affecting the agricultural sector and livelihoods. The situation is worsening and disproportionately affected by the COVID-19 pandemic. In this context, the Food and Agriculture Organization of the United Nations (FAO) conducted a geospatial assessment of Cabo Delgado and Nampula provinces of Mozambique for the period 2016–2021, with a particular focus on key indicators related to access to energy (biomass), food (change of agricultural land) and water (agricultural drought).

By combining remote sensing and geospatial information (for example population, land cover and administrative boundary) and other information sources, this assessment identified geographic areas and exposed household that are most affected by changes. To conduct this assessment, the methodology included development of new land cover maps for 2016 and 2021. The land cover change, based on Sentinel 2 optical data and using Google Earth Engine (GEE), allowed agriculture, forest and biomass change assessment. Forest biomass estimates were derived from the National Forest Inventory (NFI) and integrated with land cover for change assessment. Drought assessment was derived using standardized vegetation index (SVI) and standardized precipitation index (SPI).

The key finding of this assessment were that: (1) Nampula province is most affected by droughts; (2) the most negative changes from 2016 to 2021 at admin level 3 in a) agricultural area were in found Mossuril, Nacala-A-Velha, Namapa, Alua and Memba postos of Nampula province b) forest area were in N'Gapa, Meluco, Chapa of Cabo Delgado and Corrane and Meti postos of Nampula province and (3) the most exposed population to drought, agriculture land and forest lost was found in Nampula province.

Recommendations are made for further improvement of similar geospatial assessment in the future in Mozambique, summarised as follow: (1) use of ISO standard LCML in describing land cover in detail; (2) preparation and regular updating of national data at required administrative level; (3) updating demographic and geographic boundaries for the IDP sites; (4) collection and use of field data for validation and calibration; (5) use of high-resolution satellite imagery and innovative geospatial technologies; (6) use of various vegetation indices, biophysical and socioeconomic indicators; (7) combine different sources of information from different stakeholders and platforms such as agroecological zoning by crop types, FAOSTAT and other national agriculture and crop statistics; and (8) consultation, collaboration and coordination with other local, regional and national stakeholders involved in land monitoring and conflict risk management.

1 Background

Cabo Delgado province is located in the northernmost part of Mozambique, bordering the neighbouring country of United Republic of Tanzania. More than 2 320 000 people live in 82 625 km^2 area. The province's climate is characterized as a tropical savanna climate. In terms of economic development, the province lagged the rest of Mozambique. The conflicts and insurgencies along with climate shocks have even made it worse. Some of the populated area including Pemba are categorized as crisis phase in terms of food security (IPC phase October 2020 – January 2021). Discovery of natural gas and rubies brought the hope in development for the Cabo Delgado population. But the appearance of insurgency characterized by attacks in the villages has been a key factor of displacement and misery. Maize, sorghon and cowpeas are the main crops during the growing season.

Nampula province is located in the north-eastern part of Mozambique with an area of 79 010 km^2. Also known as "The capital of North", Nampula is the centre of business in northern Mozambique. With a population of 743 125 it is the third largest city in Mozambique after Maputo and Matola. The province has been facing extreme crises and needs humanitarian assistance.

In this context, improvement of the agricultural system along with judicious planning is an important prerequisite to improve the food security and minimize conflicts. The state-of-the-art remote sensing data and geospatial tools has a key role to play in this regard. This document presents the results of the remote sensing and geospatial analysis carried out in the Cabo Delgado and Nampula provinces, including the internally displaced person(s) (IDP) site areas that provides spatially explicit information related to drought, forest and agricultural land change during 2016 to 2021.

2 Objectives

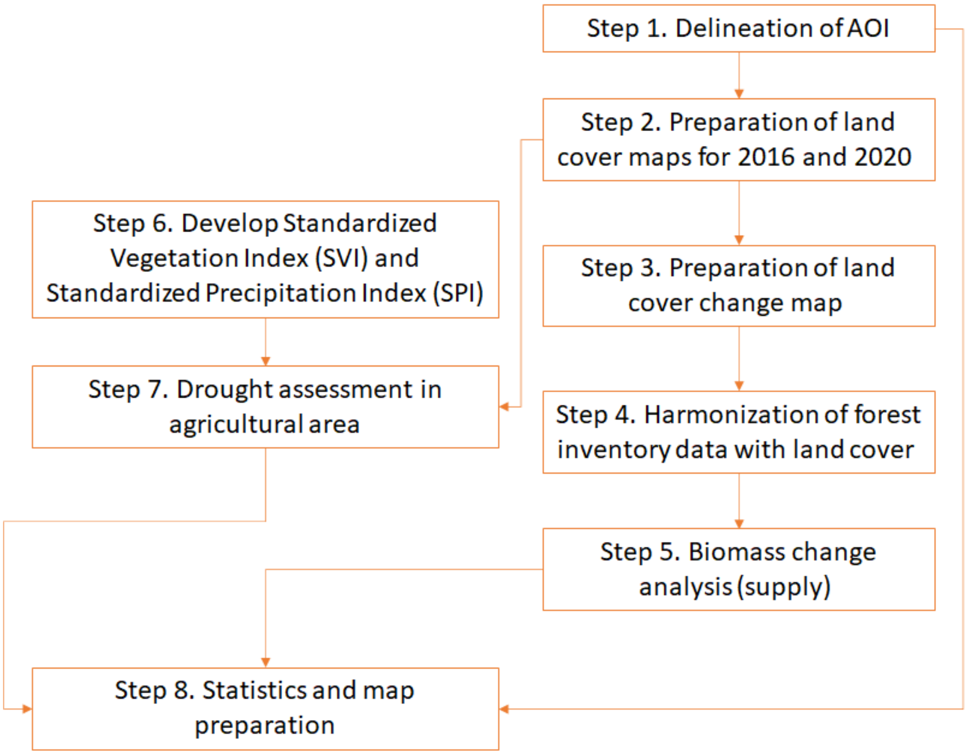
The objectives of the assessment were to:

- To undertake a geospatial analysis to assess changes in agriculture, forest and biomass and to provide a spatially explicit information on the changes.
- To conduct a geospatial analysis to assess drought.
- To identify priority geographic areas that are most affected due to land cover changes and drought.

3 Data and methodology

The methodological approach for the assessment takes into consideration of several constraints specially lack of field data and incomplete data. The approach is presented in Figure 01 and elaborated in following subsections.

Figure 01. Methodological approach


Step 1. Delineation of AOI
Step 2. Preparation of land cover maps for 2016 and 2020
Step 3. Preparation of land cover change map
Step 4. Harmonization of forest inventory data with land cover
Step 5. Biomass change analysis (supply)
Step 6. Develop Standardized Vegetation Index (SVI) and Standardized Precipitation Index (SPI)
Step 7. Drought assessment in agricultural area
Step 8. Statistics and map preparation

3.1 Geographic scope

This analysis focus on Cabo Delgado and Nampula provinces. Administrative boundaries from Humanitarian Data Exchange platform (HDX)[1] was used to delineate Cabo Delgado and Nampula provinces at admin level 3 (Posto). In total, 122 Posto (level 3, 57 in Cabo Delgado and 65 in Nampula), 40 districts (level 2, 17 in Cabo Delgado and 23 in Nampula) and two provinces (level 1, Cabo Delgado and Nampula) have been analysed.

Additional results for land cover and biomass change are provided in and around each IDP sites (19 in total) in Cabo Delgado and Nampula provinces. For this, buffers of 5 km and 5 to 10 km have been created around the IDP site locations. Figure 02 presents the delineation of the geographic areas for this assessment.

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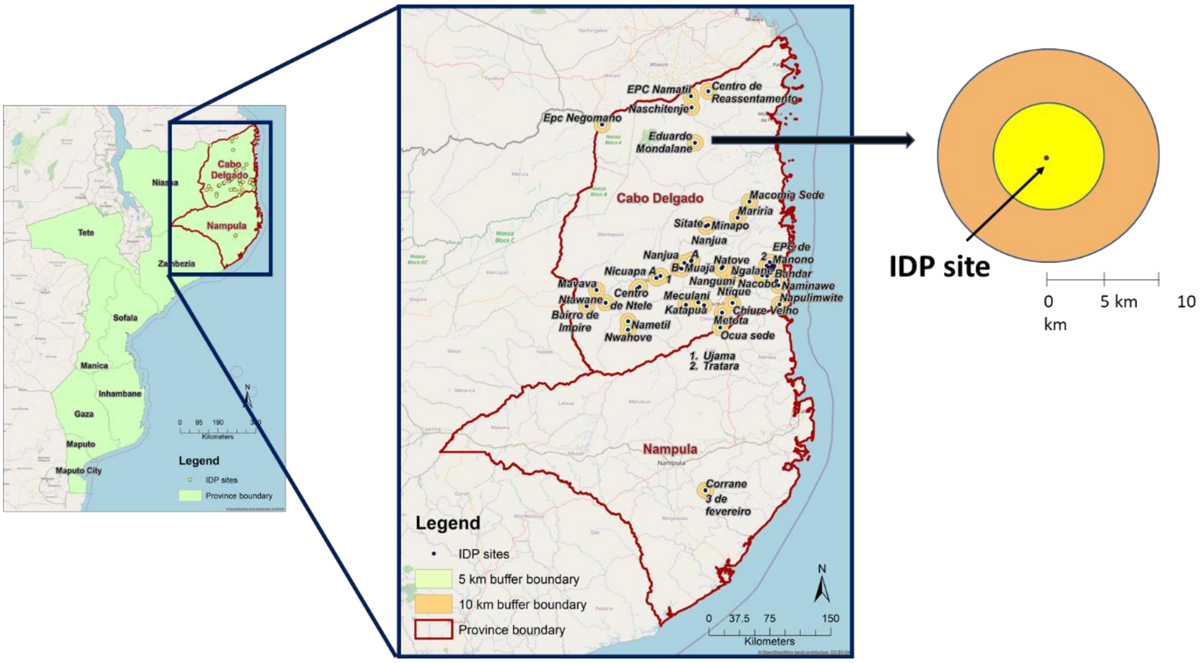
[1] https://data.humdata.org/

Figure 02. Delineation of geographic areas for the assessment


Niassa
Cabo Delgado
Nampula
Tete
Zambezia
Sofala
Manica
Inhambane
Gaza
Maputo
Maputo City
0 95 190 380
Kilometers
Legend
IDP sites
Province boundary
EPC Namatil
Centro de Reassentamento
Naschitenje
Epc Negomano
Eduardo Mondalane
Cabo Delgado
Macomia Sede
Mariria
Sitate
Minapo
Nanjua
Nanjua A
B Muaja
1
Natove
2 Manono
EPC de
Ngalane
Bandar
Nicuapa A
Nangumi
Nacobo
Naminawe
Napulimwite
Mavava
Ntawane
Centro de Ntele
Meculani
Ntique
Katapua
Chiure Velho
Metota
Bairro de Impire
Nametil
Nwahove
Ocua sede
1. Ujama
2. Tratara
Nampula
Corrane
3 de fevereiro
Legend
IDP sites
5 km buffer boundary
10 km buffer boundary
Province boundary
N
0 37.5 75 150
Kilometers
IDP site
0 5 km 10
km

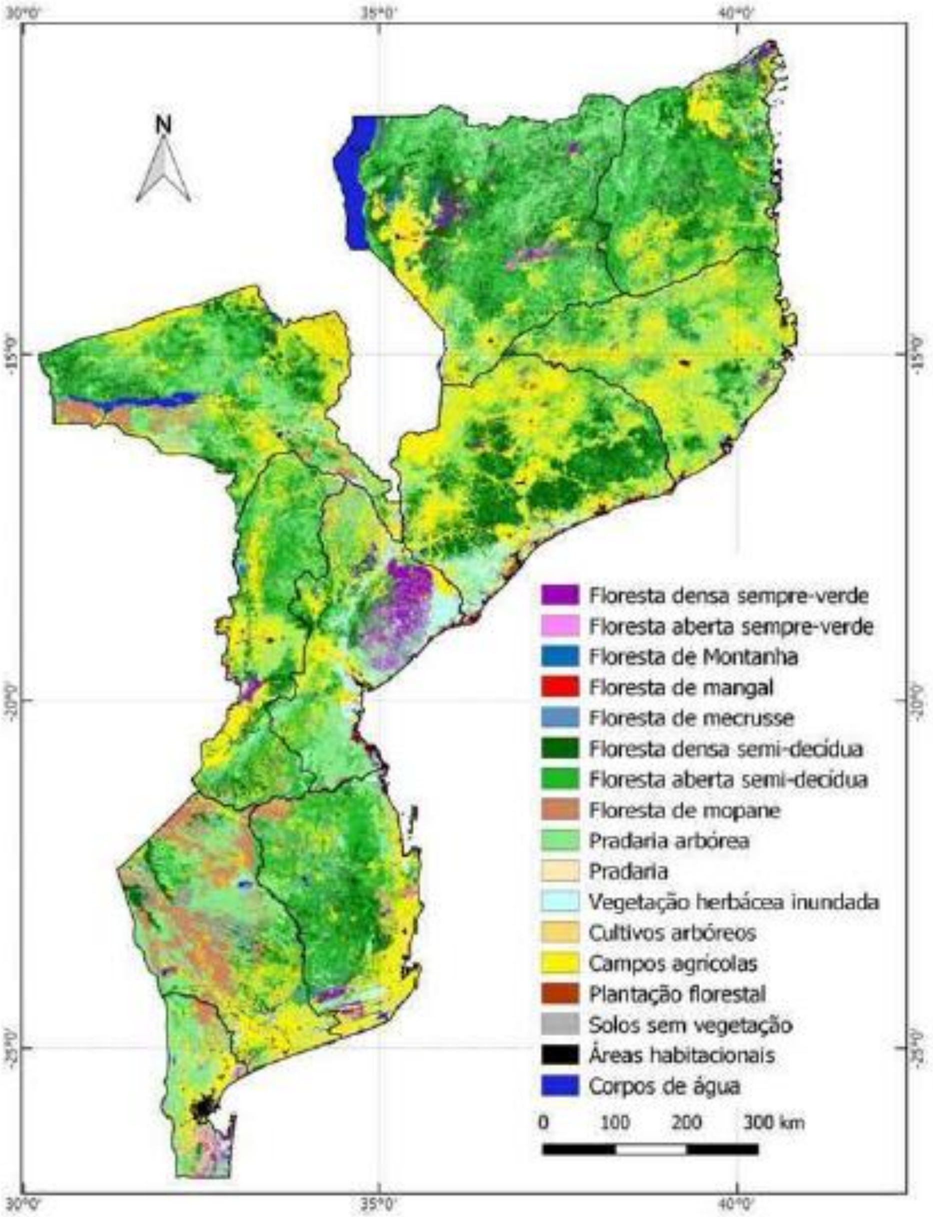
Sources: Administrative boundary: *HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
IDP sites: FAO Mozambique

3.2 Preparation of land cover and land cover change maps

3.2.1 Legend and training data

Seventeen land cover classes based on the national land cover map of 2016 (FNDS, 2020) were considered for land cover mapping and subsequent assessment. The land covers are bare ground, flooded herbaceous area, forest deciduous closed, forest deciduous open, Forest evergreen closed, forest evergreen open, forest plantation, mangrove, mecrusse, mountain forest, non-tree cultivation, prairie, prairie tree, rock without vegetation, tree cultivation, urban area and waterbody. No detailed descriptions of these land cover classes were available during the assessment. Training samples for the land cover mapping have been collected from this national map (Figure 03) by allocating two hundred randomly selected sample points for each of the land covers. Outliers in the training data for each of the land cover classes were identified using several spectral bands and indices and excluded from further analysis.

Figure 03. Mozambique land cover map of 2016


30°0'
35°0'
40°0'
-15°0'
-20°0'
-25°0'
N
Floresta densa sempre-verde
Floresta aberta sempre-verde
Floresta de Montanha
Floresta de mangal
Floresta de mecrusse
Floresta densa semi-decidua
Floresta aberta semi-decidua
Floresta de mopane
Pradaria arbórea
Pradaria
Vegetação herbácea inundada
Cultivos arbóreos
Campos agricolas
Plantação florestal
Solos sem vegetação
Áreas habitacionais
Corpos de água
0
100
200
300 km

Source: FNDS 2020. *Mapa de cobertura florestal de Moçambique 2016 [Mozambique Forest Cover Map 2016]*. Maputo, Mozambique, Fundo Nacional de Desenvolvimento Sustentavel. www.fnds.gov.mz/mrv

3.2.2 Satellite and ancillary data

Sentinel 2 (S2) optical data were used. Of the 13 spectral bands of S2 in the visible, near-infrared and short-wave infrared parts of the spectrum, 6 spectral bands of blue [496.6nm (S2A) / 492.1nm (S2B)], green [560nm (S2A) / 559nm (S2B)], red [664.5nm (S2A) / 665nm (S2B)], red edge 2 [740.2nm (S2A) / 739.1nm (S2B)], near infrared [835.1nm (S2A) / 833nm (S2B)] and short-wave infrared 1 [1613.7nm (S2A) / 1610.4nm (S2B)] were used.

Analysis Ready Data (ARD) data from Sentinel 2, available through the Google earth Engine (GEE), were retrieved. All images from January to December for the years of 2016 and 2021 were used. Clouds were masked and were transformed to temporal composites (i.e. January–April, May–August and September–December) to achieve spatially homogenous and temporally equidistant images, allowing a uniform processing framework for the whole county (Griffiths *et al.*, 2020). Apart from satellite images, ancillary data used for mapping land cover were elevation (SRTM 30m), slope (derived from SRTM 30m), aspect (derived from SRTM 30m).

3.2.3 Image segmentation

An object based image analysis (OBIA) approach was adopted to create image objects. In particular, the simple non-iterative clustering (SNIC) super-pixel segmentation, available in GEE, was used. The SNIC algorithm starts from seeds created on a regular grid and then, groups pixels into super-pixel clusters based on their distance from cluster centroids, considering the normalized five-dimensional space of CIELAB color and spatial coordinates. Subsequently, all image pixels are added to priority queues based on their connectivity to existing super-pixel clusters. Each time a pixel with the smallest distance to the cluster's centroid is added, an updated centroid value and priority queue is generated for each growing cluster (Achanta and Süsstrunk, 2017).

Parameters needed to be set in the SNIC segmentation are the seed distance, segment compactness, connectivity and the neighbourhood size. Based on trial and error and visual inspection, SNIC parameters were selected after various experiments, based on visual inspection to produce the most homogeneous and meaningful objects within the experiment test sites and in accordance with the concept that "a good segmentation is one that shows little over-segmentation and no under-segmentation" (G.J. and G., 2008). The SNIC parameters were set to a) seed distance of 100 pixels, b) segment compactness = 1, c) 8-pixel connectivity and d) neighbourhood size of 256 pixels.

3.2.4 Classification

A wide range of spectral and spatial features were considered in the classification process and used to calculate descriptive statistics for each image object (**Table 01**). For land cover classification, random forest (RF), a popular supervised machine learning algorithm, was used. RF model is nonparametric and fits multiple decision tree classifiers on various subsamples of the dataset using averaging/majority to improve the predictive accuracy and control over fitting (Breiman, 2001). It uses only a part of the samples for training and keeps the remaining (so called out-of-the bag samples) for an internal error estimate, called out-of-bag (OOB) error. RF has been proven to be robust to reference data errors up to 15 percent, works well with small sample sizes and highly dimensional feature spaces. In addition, it has a small execution time compared to other classification methods (Inglada *et al.*, 2017). For the above reasons, RF has been widely used in LULC classification studies and has shown the best performance in object based classification (Ma *et al.*, 2017).

Table 01. Features considered in the classification process

Feature name	**Statistics per object**	**Index formula**	**Data source**
Original bands			
B2, B3, B4, B6, B8, B11	Mean		S2 L1C
Spectral indices			
NDVI	Mean	(NIR – Red) / (NIR + Red)	S2 L1C
reNDVI	Mean	(NIR – RE2) / (NIR + RE2)	S2 L1C
MNDWI	Mean	(Green - SWIR1) / (Green + SWIR1)	S2 L1C
GRVI	Mean	(Green - Red) / (Green + Red)	S2 L1C
NDRBI	Mean	(Red - Blue) / (Red + Blue)	S2 L1C
MSI	Mean	SWIR1/NIR	S2 L1C
EVI	Mean	2.5 * ((NIR - Red) / (NIR + 6 * Red - 7.5 * Blue + 1))	S2 L1C
$SAVI_{0.5}$	Mean	((NIR - Red) / (NIR + Red + 0.5)) * (1 + 0.5)	S2 L1C
Object shape properties			
Perimeter		P	
Area		A	
From factor		4PiA/P	
Square pixel metric		1 – (4sqrt(A)/P)	
Fractal dimension			
Shape index		P/4sqrt(A)	
Ancillary data			
Elevation, slope, aspect	Mean		SRTM

3.2.5 Land cover change map

Land cover change map was prepared by overlaying the land cover maps of 2016 and 2021 and subsequently used for biomass change analysis.

3.3 Harmonization of forest inventory data with land cover and biomass change analysis

In the national forest inventory (NFI), biomass data were not available for all land cover classes (MITADER, 2018). Accordingly, average biomass was used for forest class and zero for other land cover classes for which biomass data were not available in the NFI (**Table 02**).

Table 02. Biomass per land cover class

SL	2016 LC map class	Agriculture/forest	Biomass data available	TB (Mg/ha)
1	Tree cultivation	Other	No	0
2	Non-tree cultivation	Agriculture	No	0
3	Forest plantation	Forest	No	93.77
4	Prairie	Other	No	0
5	Prairie tree	Other	No	0
6	Flooded herbaceous area	Other	No	0
7	Water body	Other	No	0
8	Urban area	Other	No	0
9	Bare ground	Other	No	0
10	Rock without vegetation	Other	No	0
11	Mangrove	Forest	No	93.77
12	Mecrusse	Forest	Yes	99.23
13	Mountain forest	Forest	Yes	129.09
14	Forest evergreen closed	Forest	Yes	129.09
15	Forest deciduous closed	Forest	Yes	87.05
16	Mopane	Forest	Yes	58.4
17	Forest evergreen open	Forest	Yes	129.09
18	Forest deciduous open	Forest	Yes	87.05

Source: MITADER 2018. *Inventário Florestal Nacional [National Forest Inventory]*. Maputo, Mozambique, Fundo Nacional de Desenvolvimento Sustentavel. https://fnds.gov.mz/mrv/index.php/documentos/relatorios/26-inventario-florestal-nacional/file

3.4 Drought assessment

Draught assessment was based on calculation of Standardized Vegetation Index (SVI) and Standardized Precipitation Index (SPI). The SVI describes the probability of variation from the normal Enhanced Vegetation Index (EVI) over multiple years of data, on a 16-day time step. The EVI images are level 3 products based on data captured by MODIS. The SVI is calculated by taking the EVI of the pixel i during week j for year k minus the mean for pixel i during week j over n years, divided by standard deviation of pixel i during week j over n years (Peters *et al.*, 2002).

The SPI describes the probability of variation from the normal precipitation over multiple years of data, on a specific time step. The SPI is calculated by taking the precipitation of the pixel i during timeframe j of year k minus the mean of pixel i during timeframe j over n years, divided by standard deviation of pixel i during timeframe j over n years. As the vegetation might need some time to respond to rainfall, a shift of five days for the calculated 16-day SPI was applied - SPI calculations started five days before the MODIS start dates and end the calculations five days earlier than the MODIS end dates as well.

SVI value less than – 1.96 represent areas with vegetation decrease at 95 percent confidence level. However, such decrease of vegetation may be natural or man-made. Accordingly, SVI with value less than – 1.96 (5 percent significant level) with SPI less than 0 (decreased precipitation) were combined to identify drought and non-agricultural lands from the 2021 land cover map were masked out to identify drought in agricultural land.

3.5 Statistics and map preparation

Lack of ground data and low accuracy of the baseline data[2] was a major concern for the assessment. Such uncertainty usually propagates in subsequent analyses. Accordingly, the results were scaled that provides a comparative result across the units of analysis (e.g. Posto) instead of absolute values of changes. Demographic data for the IDP sites were not complete and hence, should be used accordingly.

Necessary statistics for different AOIs (admin levels and IDP site locations) were prepared to produce different maps and tables as reported in the results section. Detail information on land cover change, drought, etc. for individual Posto and IDP site are provided in appendix. In addition, .kml files have been prepared to facilitate any user with Google Earth to visualise some of the results, as listed below.

Change in agricultural area at Posto level from 2016 to 2021 is available here.
Change in forest area at Posto level from 2016 to 2021 is available here.
Change in biomass at Posto level from 2016 to 2021 is available here.
Percentage of agricultural area affected by drought in 2021 at Posto level is available here.

---

[2] Overall accuracy of the 2016 national land cover map was 65.2% ± 1.7% at 95% confidence interval.

4 Results

4.1 Changes in agriculture, forest and biomass at admin level

4.1.1 Change in agriculture area

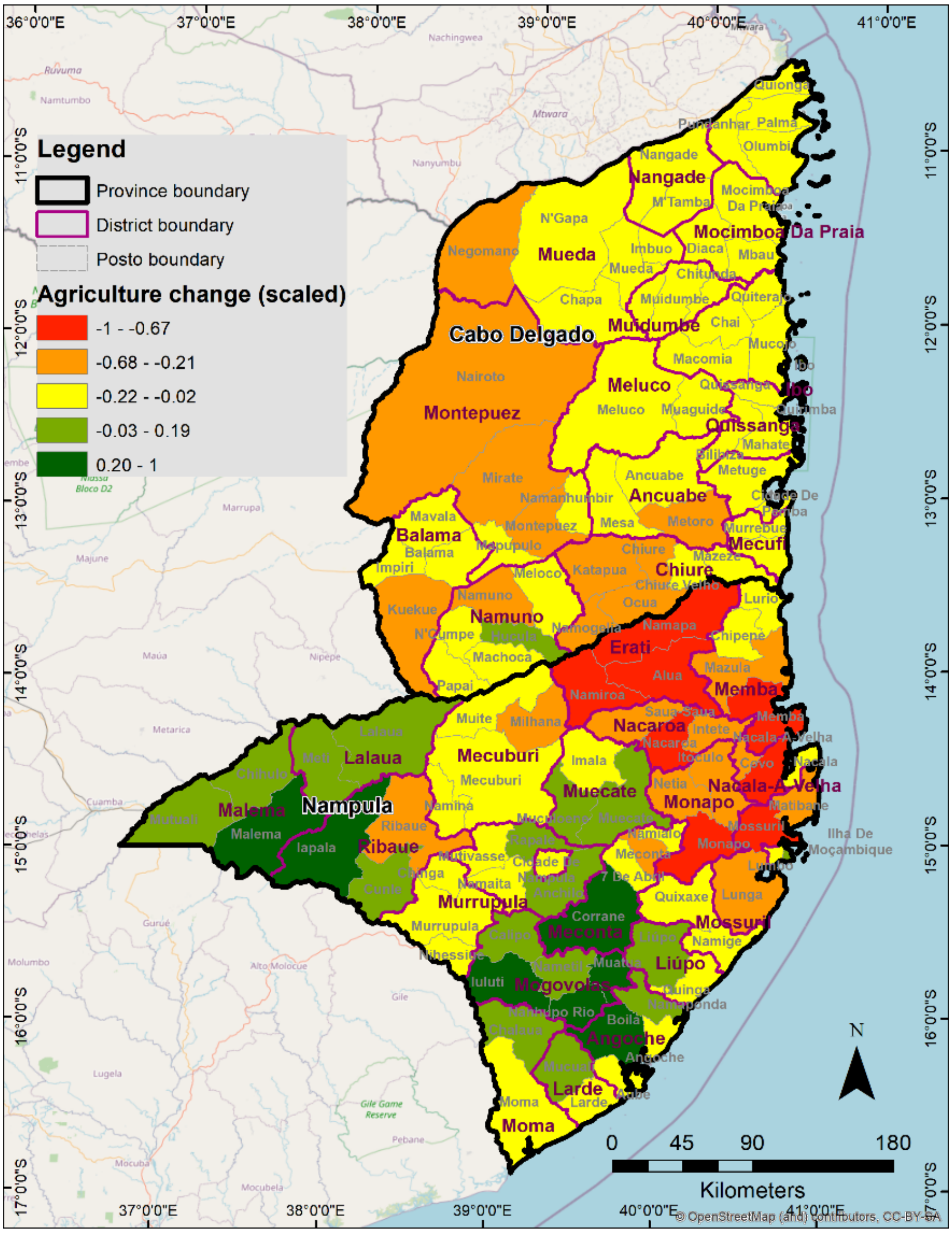
Figure 4 shows the change in the agriculture area from 2016 to 2021 at the admin level 3 (Posto). The changes in agricultural land were scaled between –1 to 1, where positive change indicates that agricultural land increased while negative means decreased in agricultural land from 2016 to 2021. The highest negative change in agriculture area (reduction) was found in Mossuril (Nampula province). In addition, reduction in agricultural land mostly found in Nampula province (Mossuril, Nacala-A-Velha, Erati, Memba, Monapo and Nacaroa districts). In contrast, the results further indicate that most of the positive change in agriculture area (increased) was also detected Nampula province. Top ten most affected Posto due to loss in agricultural land are listed in Table 3.

Table 03. Top ten most affected Posto due to loss of agricultural land

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
NAMPULA	Mossuril	Mossuril	MZ071603	47 282	848	1
NAMPULA	Nacala-A-Velha	Nacala-A-Velha	MZ072002	77 709	845	2
NAMPULA	Erati	Namapa	MZ070302	150 885	2 259	3
NAMPULA	Erati	Alua	MZ070301	114 715	1 913	4
NAMPULA	Memba	Memba	MZ071104	100 259	1 385	5
NAMPULA	Monapo	Monapo	MZ071502	179 258	1 233	6
NAMPULA	Nacaroa	Nacaroa	MZ072102	74 677	934	7
NAMPULA	Erati	Namiroa	MZ070303	70 852	1 528	8
NAMPULA	Monapo	Itoculo	MZ071501	69 068	1 243	9
CABO DELGADO	Montepuez	Nairoto	MZ011104	15 873	12 080	10

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

Figure 04. Change in agricultural area from 2016 to 2021 at admin level 3 (Posto)


36°0'0"E
37°0'0"E
38°0'0"E
39°0'0"E
40°0'0"E
41°0'0"E
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12°0'0"S
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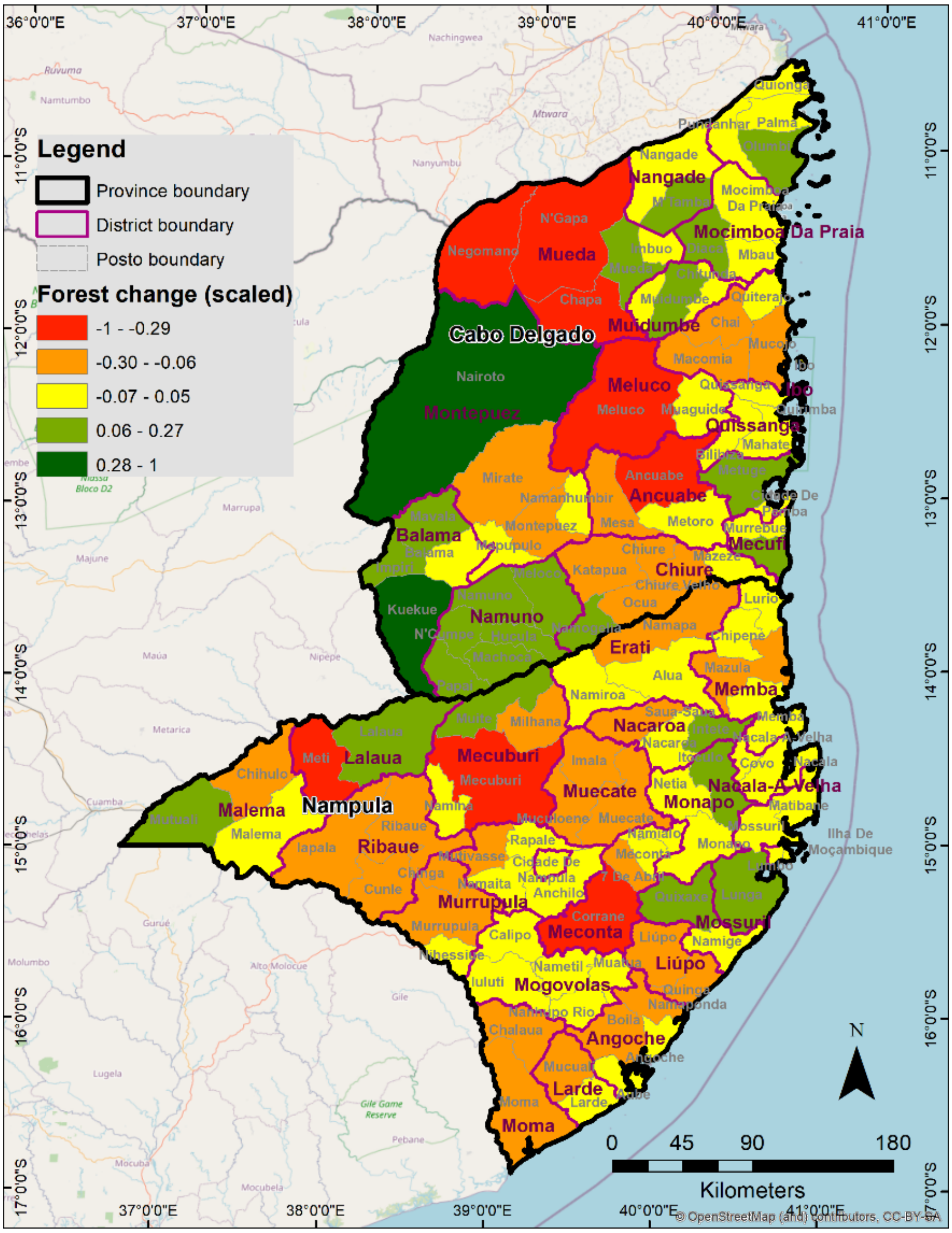
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Legend
Province boundary
District boundary
Posto boundary
Agriculture change (scaled)
-1 - -0.67
-0.68 - -0.21
-0.22 - -0.02
-0.03 - 0.19
0.20 - 1
Cabo Delgado
Nampula
Mueda
N'Gapa
Negomano
Chapa
Nangade
Palma
Quionga
Olumbi
Mocimboa Da Praia
Muidumbe
Macomia
Meluco
Quissanga
Montepuez
Nairoto
Mirate
Ancuabe
Metoro
Balama
Mavala
Impiri
Chiure
Namuno
Mecufi
Erati
Memba
Nacaroa
Lalaua
Malema
Ribaue
Mecuburi
Muecate
Monapo
Nacala-A-Velha
Murrupula
Meconta
Mossuril
Mogovolas
Liupo
Angoche
Larde
Moma
Ilha De Moçambique
Iapala
Imala
Namapa
Alua
Mazula
Lurio
Corrane
Quixaxe
Lunga
Iuluti
0
45
90
180
Kilometers
N
© OpenStreetMap (and) contributors, CC-BY-SA

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

4.1.2 Change in forest area

Figure 5 shows the changes in the forest area from 2016 to 2021 at admin 3 level (Posto). The changes in forest area were scaled between −1 and 1, where positive means that forest area is increased while negative means decrease in forest area from 2016 to 2021. The highest loss in forest area was found in N'Gapa, Meluco and Chapa posto in Cabo Delgado and Corrane and Metiin posto in Nampula province Some positive changes in forest area were also detected in Cabo Delgado and Nampula. Table 4 lists the top ten most affected Posto due to forest loss between 2016 and 2021.

Figure 05. Change in forest area from 2016 to 2021 at admin level 3 (Posto)


36°0'0"E
37°0'0"E
38°0'0"E
39°0'0"E
40°0'0"E
41°0'0"E
11°0'0"S
12°0'0"S
13°0'0"S
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Legend
Province boundary
District boundary
Posto boundary
Forest change (scaled)
🟥 -1 - -0.29
🟧 -0.30 - -0.06
🟨 -0.07 - 0.05
🟩 0.06 - 0.27
🟩 0.28 - 1
Cabo Delgado
Nampula
Nangade
Mueda
Mocimboa Da Praia
Palma
Muidumbe
Meluco
Montepuez
Quissanga
Ancuabe
Balama
Chiure
Mecufi
Namuno
Erati
Memba
Lalaua
Mecuburi
Malema
Ribaue
Nacaroa
Muecate
Monapo
Nacala-A-Velha
Murrupula
Meconta
Mossuril
Mogovolas
Liúpo
Angoche
Larde
Moma
N
0
45
90
180
Kilometers
© OpenStreetMap (and) contributors, CC-BY-SA

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Table 04. Top ten most affected Posto due to loss of forest area

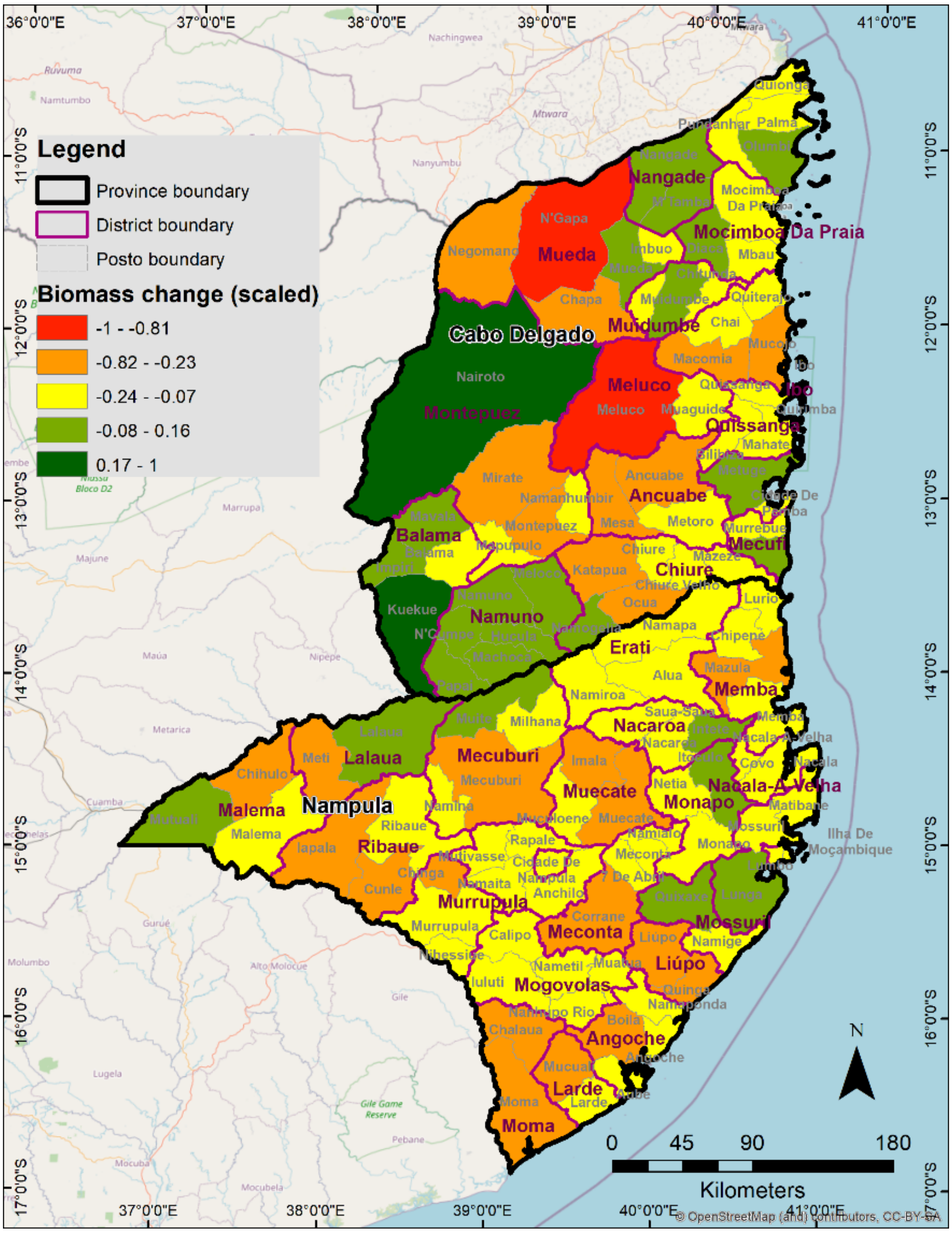
PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
CABO DELGADO	Mueda	N'Gapa	MZ011204	36 945	4 493	1
CABO DELGADO	Meluco	Meluco	MZ010801	15 344	4 525	2
CABO DELGADO	Mueda	Chapa	MZ011201	36 789	2 033	3
NAMPULA	Meconta	Corrane	MZ070902	72 163	2 317	4
NAMPULA	Lalaua	Meti	MZ070502	22 607	1 660	5
CABO DELGADO	Mueda	Negomano	MZ011205	3 352	3 023	6
NAMPULA	Mecuburi	Mecuburi	MZ071001	108 127	3 641	7
CABO DELGADO	Ancuabe	Ancuabe	MZ010101	48 102	2 090	8
NAMPULA	Malema	Chihulo	MZ070801	24 871	1 687	9
NAMPULA	Muecate	Muecate	MZ071703	74 980	1 908	10

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

4.1.3 Change in biomass

Figure 6 shows the change in the biomass from 2016 to 2021 at the admin level (Posto). The changes in biomass were scaled from −1 to 1 where positive means that biomass is increased while negative means decrease in biomass from 2016 to 2021. The highest loss in biomass was found in N'Gapa and Meluco in Cabo Delgado province. Positive change in biomass was mostly detected the Cabo Delgado areas. Top ten most affected Posto due to biomass loss are the same for forest loss as listed in Table 4. This is because biomass loss is based on only forest loss due unavailability of biomass data for the land covers other than forest.

Figure 06. Change in biomass from 2016 to 2021 at admin level 3 (Posto)


Legend
Province boundary
District boundary
Posto boundary
Biomass change (scaled)
🟥 -1 - -0.81
🟧 -0.82 - -0.23
🟨 -0.24 - -0.07
🟩 -0.08 - 0.16
🟩 0.17 - 1
36°0'0"E
37°0'0"E
38°0'0"E
39°0'0"E
40°0'0"E
41°0'0"E
11°0'0"S
12°0'0"S
13°0'0"S
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Cabo Delgado
Nampula
Montepuez
Nairoto
Mueda
N'Gapa
Negomano
Chapa
Nangade
Palma
Quionga
Pundanhar
Olumbe
Mocimboa Da Praia
Mbau
Muidumbe
Chai
Quiterajo
Macomia
Meluco
Muaguide
Quissanga
Mahate
Ibo
Quirimba
Ancuabe
Metoro
Mesa
Namanhumbir
Mirate
Balama
Mapupulo
Chiure
Chiure Velho
Katapua
Ocua
Mazeze
Mecufi
Murrebue
Lurio
Kuekue
Namuno
N'Cumpe
Namapa
Erati
Alua
Chipene
Mazula
Memba
Namiroa
Milhana
Nacaroa
Saua-Saua
Lalaua
Meti
Chihulo
Mecuburi
Imala
Malema
Muecate
Netia
Nacala-A-Velha
Covo
Nacala
Monapo
Matibane
Ilha De Moçambique
Namina
Ribaue
Iapala
Cunle
Chinga
Rapale
Cidade De Nampula
Anchilo
Namialo
Meconta
Lunga
Mossuril
Namaita
Murrupula
Calipo
Corrane
Liupo
Namige
Nametil
Muatua
Mogovolas
Iuluti
Quinga
Namaponda
Nanhupo Rio
Boila
Chalaua
Angoche
Mucual
Larde
Moma
Nihessiue
N
0
45
90
180
Kilometers
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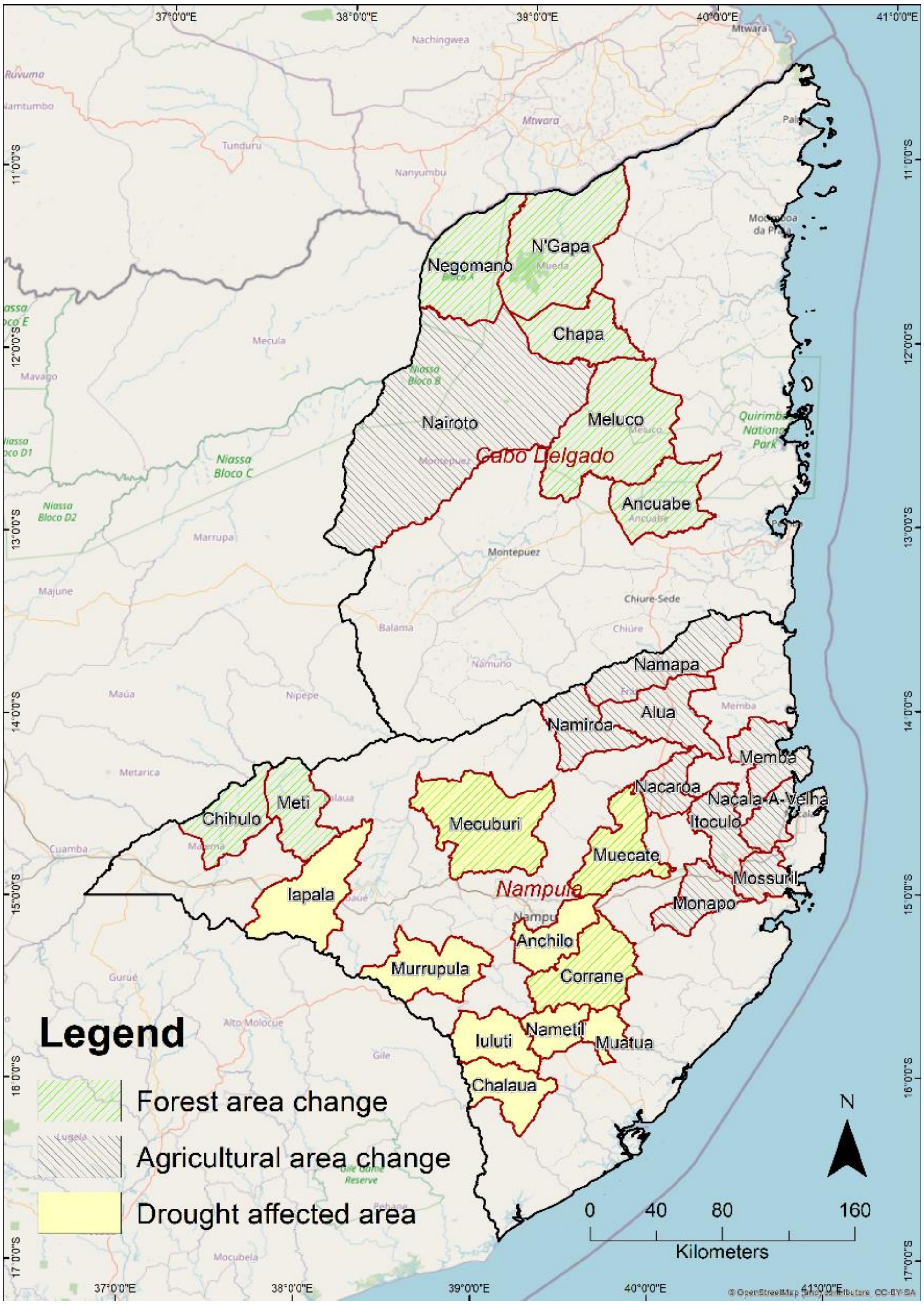
Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Figure 7 shows the top ten most affected Postos due to forest and agriculture land loss and drought. The result shows that all the most affected Posto by drought are located in Nampula province. Most affected Postos by agricultural land loss were also concentrated in the Nampula province. In contrast, Cabo Delgado province has most of the Postos highly affected due to forest land loss.

Figure 07. Top ten most affected Posto due to forest loss, agricultural land loss and drought


37°0'0"E
38°0'0"E
39°0'0"E
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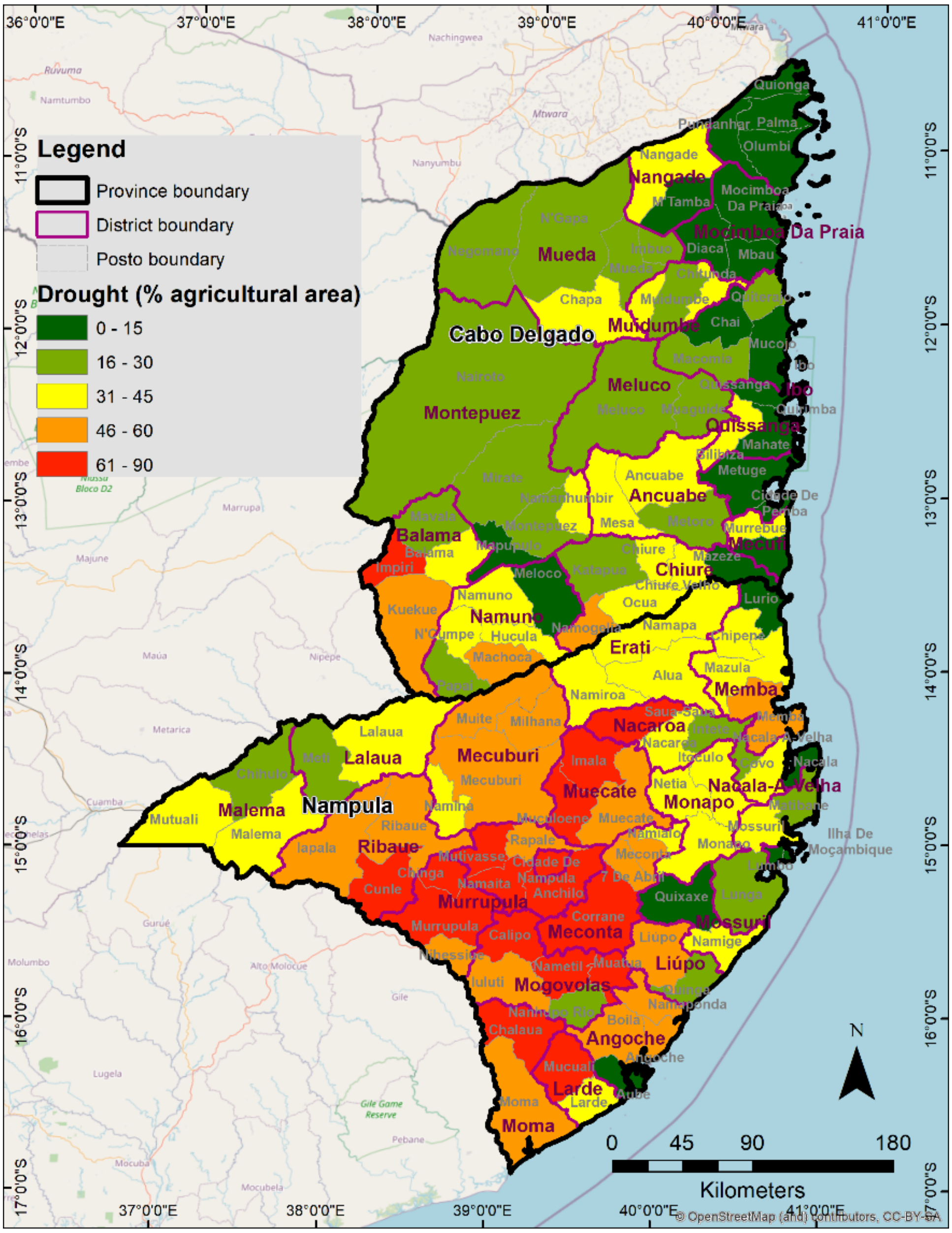
41°0'0"E
11°0'0"S
12°0'0"S
13°0'0"S
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Negomano
N'Gapa
Chapa
Nairoto
Meluco
Cabo Delgado
Ancuabe
Namapa
Alua
Namiroa
Memba
Nacaroa
Nacala-A-Velha
Itoculo
Mossuril
Monapo
Chihulo
Meti
Mecuburi
Muecate
Nampula
Iapala
Anchilo
Corrane
Murrupula
Nametil
Muatua
Iuluti
Chalaua
Legend
Forest area change
Agricultural area change
Drought affected area
N
0
40
80
160
Kilometers

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

4.2 Drought at admin level

Figure 9 shows drought affected agriculture area in 2021 at the admin level 3 (Posto). The affected agricultural area by drought was shown in percentage of the agricultural land affected by drought in the Posto. The highest the percentage, the more agriculture area is affected. The results indicate that most Nampula province was highly affected by drought. Few affected agriculture area by drought were found in Cabo Delgado province. Top ten affected Posto due to drought are listed in Table 5.

Figure 08. Drought affected agricultural area in 2021 at admin level 3 (Posto)


Legend
Province boundary
District boundary
Posto boundary
Drought (% agricultural area)
0 - 15
16 - 30
31 - 45
46 - 60
61 - 90
36°0'0"E
37°0'0"E
38°0'0"E
39°0'0"E
40°0'0"E
41°0'0"E
11°0'0"S
12°0'0"S
13°0'0"S
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Cabo Delgado
Nampula
Mueda
Montepuez
Meluco
Muidumbe
Nangade
Mocimboa Da Praia
Quissanga
Ibo
Ancuabe
Chiure
Balama
Namuno
Erati
Memba
Nacaroa
Lalaua
Mecuburi
Malema
Ribaue
Muecate
Monapo
Nacala-A-Velha
Murrupula
Meconta
Mossuril
Liúpo
Mogovolas
Angoche
Larde
Moma
Ilha De Moçambique
N
0
45
90
180
Kilometers
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Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Table 05. Top ten most affected Posto due to drought in agricultural land

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
NAMPULA	Meconta	Corrane	MZ070902	72 163	2 317	1
NAMPULA	Mogovolas	Iuluti	MZ071302	84 815	1 390	2
NAMPULA	Mecuburi	Mecuburi	MZ071001	108 127	3 641	3
NAMPULA	Ribaue	Iapala	MZ072302	135 324	2 623	4
NAMPULA	Muecate	Muecate	MZ071703	74 980	1 908	5
NAMPULA	Moma	Chalaua	MZ071401	97 859	1 400	6
NAMPULA	Mogovolas	Nametil	MZ071304	172 972	911	7
NAMPULA	Mogovolas	Muatua	MZ071303	49 681	605	8
NAMPULA	Murrupula	Murrupula	MZ071802	149 689	1 958	9
NAMPULA	Rapale	Anchilo	MZ072201	145 876	1 317	10

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

4.3 Population exposed to loss in agricultural land, forest and drought

Apart from identifying the most affected Posto due to drought, agriculture and forest loss, population exposed to these drivers were also estimated at Posto level. Table 6, Table 7 and Table 8 present the most affected Posto due to the population exposed to agricultural land loss, forest loss and drought, respectively. Figure 9 presents the top ten most affected Posto considering the highest number of population exposed to forest and agriculture land loss and drought.

Table 06. Top ten most affected Posto due to population exposed to agricultural land loss

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
NAMPULA	Nacala	Nacala	MZ071901	294 727	319	1
NAMPULA	Cidade De Nampula	Cidade De Nampula	MZ070201	847 218	330	2
CABO DELGADO	Cidade De Pemba	Cidade De Pemba	MZ010401	260 693	100	3
NAMPULA	Monapo	Monapo	MZ071502	179 258	1 233	4
NAMPULA	LiÃºpo	Quinga	MZ070702	135 307	758	5

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
NAMPULA	Angoche	Aube	MZ070102	150 061	552	6
NAMPULA	Erati	Namapa	MZ070302	150 885	2 259	7
NAMPULA	Monapo	Netia	MZ071503	211 250	1 040	8
NAMPULA	Erati	Alua	MZ070301	114 715	1 913	9
NAMPULA	Nacala-A-Velha	Nacala-A-Velha	MZ072002	77 709	845	10

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

Table 07. Top ten most affected Posto due to population exposed to forest loss

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
CABO DELGADO	Cidade De Pemba	Cidade De Pemba	MZ010401	260 693	100	1
NAMPULA	Mogovolas	Nametil	MZ071304	172 972	911	2
NAMPULA	Monapo	Netia	MZ071503	211 250	1 040	3
NAMPULA	Moma	Moma	MZ071402	233 737	2 510	4
NAMPULA	Memba	Mazula	MZ071103	182 390	1 570	5
NAMPULA	Rapale	Anchilo	MZ072201	145 876	1 317	6
NAMPULA	Angoche	Boila	MZ070103	104 360	1 253	7
NAMPULA	LiÃºpo	Quinga	MZ070702	135 307	758	8
NAMPULA	Mogovolas	Iuluti	MZ071302	84 815	1 390	9
NAMPULA	Moma	Chalaua	MZ071401	97 859	1 400	10

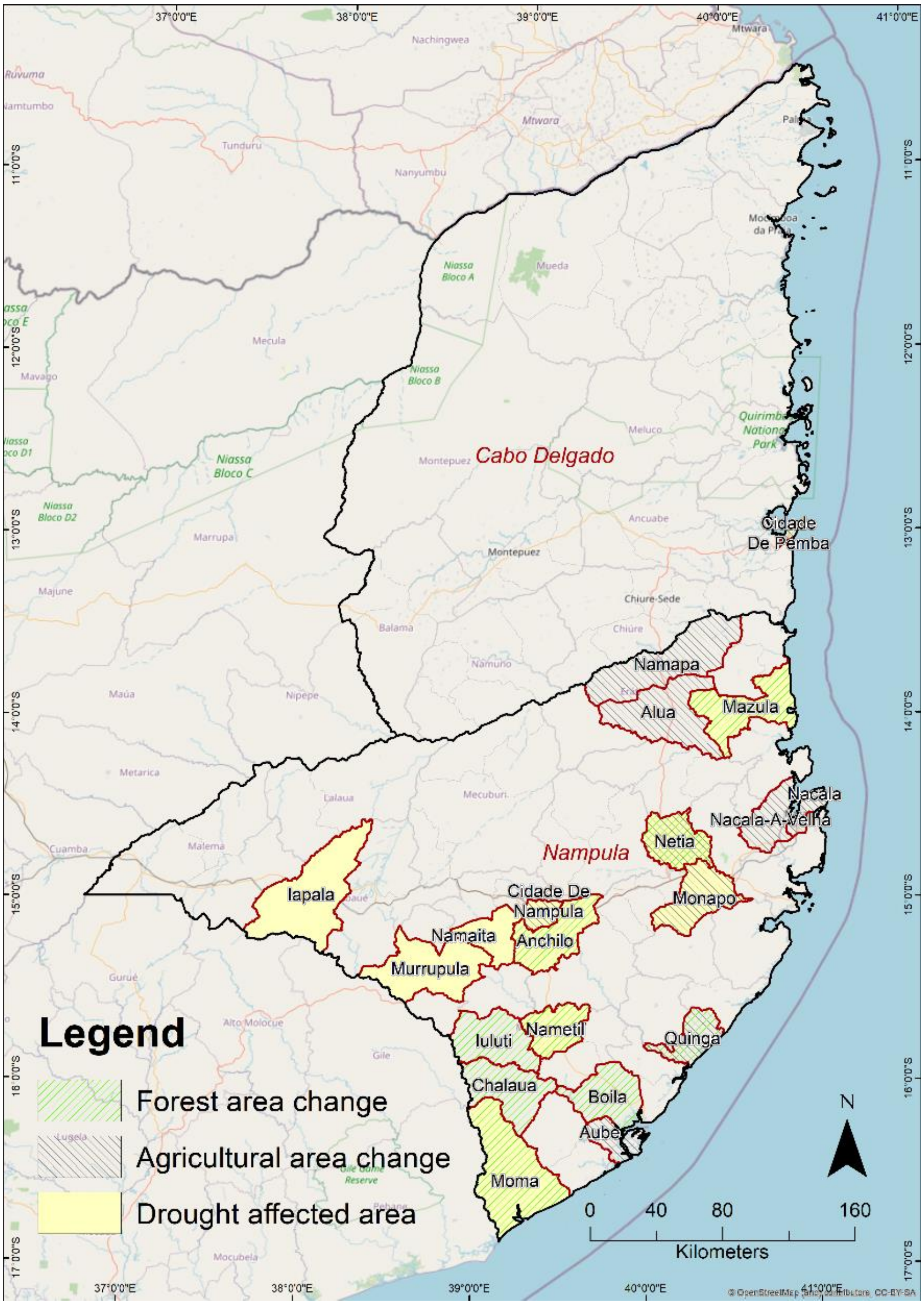
Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

Table 08. Top ten most affected Posto due to population exposed to drought in agricultural land

PROVINCE	DISTRICT	POSTO	CODE	POPULATION	AREA (SQ KM)	RANK
NAMPULA	Cidade De Nampula	Cidade De Nampula	MZ070201	847 218	330	1
NAMPULA	Moma	Moma	MZ071402	233 737	2 510	2
NAMPULA	Mogovolas	Nametil	MZ071304	172 972	911	3
NAMPULA	Murrupula	Murrupula	MZ071802	149 689	1 958	4
NAMPULA	Rapale	Anchilo	MZ072201	145 876	1 317	5
NAMPULA	Monapo	Netia	MZ071503	211 250	1 040	6
NAMPULA	Rapale	Namaita	MZ072203	118 352	822	7
NAMPULA	Ribaue	Iapala	MZ072302	135 324	2 623	8
NAMPULA	Monapo	Monapo	MZ071502	179 258	1 233	9
NAMPULA	Memba	Mazula	MZ071103	182 390	1 570	10

Sources: Administrative boundary: HDX 2021. *Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021. Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints*. WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

Figure 09. Top ten most affected Posto considering exposed population to forest loss, agricultural land loss and drought


37°0'0"E
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11°0'0"S
12°0'0"S
13°0'0"S
14°0'0"S
15°0'0"S
16°0'0"S
17°0'0"S
Cabo Delgado
Cidade De Pemba
Namapa
Alua
Mazula
Nacala
Nacala-A-Velha
Netia
Nampula
Monapo
Iapala
Cidade De Nampula
Namaita
Anchilo
Murrupula
Iluluti
Nametil
Quinga
Chalaua
Boila
Aube
Moma
Legend
Forest area change
Agricultural area change
Drought affected area
N
0
40
80
160
Kilometers
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Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

4.4 Change in biomass in and around internally displaced person(s) settlements

Table 9 and Table 10 present the most affected areas in and around the IDP sites due to biomass loss between 2016 to 2021. Within the 5 km from IDP sites location 12, that includes the IDP sites of Nanjua A, Nanjua B, Nasimoja, Muaja and Centro de Nanhupo B is the most affected. Location 10 (the IDP sites of Nangumi, Cujupane, Natove and Ntique) is the most affected for the 5 to 10 km areas from IDP sites.

Table 09. Top five most affected areas within 5 km from internally displaced person(s) settlements due to biomass loss

LOCATION ID	RANK	IDP SITE NAMES
12	1	Nanjua A, Nanjua B, Nasimoja, Muaja, Centro de Nanhupo B
6	2	Meculani, Katapua, Marrupa
5	3	Ocua sede, Chiure Velho, Metota
10	3	Nangumi, Cujupane, Natove, Ntique
1	5	3 de Corrane, Fevereiro

Table 10. Top five most affected areas within 5 to 10 km from internally displaced person(s) settlements due to biomass loss

LOCATION ID	RANK	IDP SITE NAMES
10	1	Nangumi, Cujupane, Natove, Ntique
5	2	Ocua sede, Chiure Velho, Metota
6	3	Meculani, Katapua, Marrupa
12	4	Nanjua A, Nanjua B, Nasimoja, Muaja, Centro de Nanhupo B
13	5	Sitate, Minapo

5 Recommendations

Following recommendations are made on the use of geospatial tools along with national and field data for further improvement of similar geospatial assessment in the future in Mozambique.

- National data (geospatial and tabular) should be prepared and regularly updated for possible lowest administrative boundaries, by sectors, land cover (with documented legend as far as possible using LCML ISO 19144-2) and other relevant information.
- Improve land cover information, crop mask and crop type mapping using geospatial technologies.
- Demographic and socioeconomic information collected through household survey should be incorporated.
- Tools and applications for collecting field data using combined approach through field survey and crowdsourcing, involving national stakeholders, should be developed.
- Technical capacities in using geospatial for preparing baseline information and assess risks and impacts should be enhanced through required technical assistance.
- The potential of geospatial technologies and information in strengthening collaboration and partnership among the various stakeholder groups and organisations should be leveraged.
- Satellite images, vegetation indices, agroecological zoning information by crop types, FAOSTAT, national agricultural statistics, crop calendars, market prices should be integrated to obtain national disaggregated crop statistics, consistent with the national ones.
- Use higher spatial resolution satellite imagery for specific prioritised geographic areas to go in further detail is recommended.
- Collaboration with regional and national entities involved in land monitoring and conflict risk management is to be enhanced.
- Targeted indicators to be used for geospatial analyses and for interventions are to be clearly defined.
- Strategic planning for longer-term should be undertaken at the early stage of emergency interventions to ensure the long-term sustainability of livelihoods and natural resources.

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Appendix 01. Change in agriculture, forest and biomass from 2016 to 2021 and draught in 2021 by Posto, District and Province

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
Nampula	Meconta	7 De Abril	MZ070901	46 567	553	60	35	21	245	151	-859 917
Nampula	Erati	Alua	MZ070301	114 715	1 913	371	107	34	293	247	-405 919
Nampula	Rapale	Anchilo	MZ072201	145 876	1 317	101	182	129	19	9	-100 272
Cabo Delgado	Ancuabe	Ancuabe	MZ010101	48 102	2 090	117	104	35	1484	1077	-3 904 611
Nampula	Angoche	Angoche	MZ070101	66 932	474	17	30	17	61	34	-232 557
Nampula	Angoche	Aube	MZ070102	150 061	552	23	4	0	183	163	-150 487
Cabo Delgado	Balama	Balama	MZ010201	97 921	971	298	267	81	54	64	141 259
Cabo Delgado	Quissanga	Bilibiza	MZ011801	15 946	787	7	5	2	522	574	552 921
Nampula	Angoche	Boila	MZ070103	104 360	1 253	78	272	125	331	99	-2 119 044
Nampula	Mogovolas	Calipo	MZ071301	91 973	1 085	83	169	117	31	22	-87 947
Cabo Delgado	Macomia	Chai	MZ010601	15 604	1 054	11	9	1	649	538	-1 315 365
Nampula	Moma	Chalaua	MZ071401	97 859	1 400	155	250	158	294	108	-1 699 520
Cabo Delgado	Mueda	Chapa	MZ011201	36 789	2 033	23	36	12	1413	858	-5 061 704
Nampula	Malema	Chihulo	MZ070801	24 871	1 687	17	50	14	708	350	-3 096 834
Nampula	Murrupula	Chinga	MZ071801	33 715	572	3	20	17	389	168	-1 898 613
Nampula	Memba	Chipene	MZ071101	56 891	784	12	5	2	311	296	-353 818
Cabo Delgado	Muidumbe	Chitunda	MZ011301	32 789	526	10	4	2	291	345	401 201
Cabo Delgado	Chiure	Chiure	MZ010301	101 619	621	210	82	27	184	76	-956 214
Cabo Delgado	Chiure	Chiure Velho	MZ010302	35 583	623	56	47	15	275	117	-1 435 795
Nampula	Cidade De Nam-	Cidade De Nampula	MZ070201	847 218	330	8	5	4	1	1	5 770

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
	pula										
Cabo Delgado	Cidade De Pemba	Cidade De Pemba	MZ010401	260 693	100	3	0	0	7	3	-35 632
Nampula	Meconta	Corrane	MZ070902	72 163	2 317	90	483	359	924	422	-4 488 415
Nampula	Nacala-A-Velha	Covo	MZ072001	29 904	288	89	31	9	18	59	362 518
Nampula	Ribaue	Cunle	MZ072301	45 120	1 424	96	135	94	435	258	-1 515 060
Cabo Delgado	Mocimboa Da Praia	Diaca	MZ011001	19 804	1 020	8	2	0	611	745	800 803
Cabo Delgado	Namuno	Hucula	MZ011401	20 004	762	71	92	39	21	306	2 482 164
Nampula	Ribaue	Iapala	MZ072302	135 324	2 623	205	336	195	637	438	-1 717 798
Cabo Delgado	Ibo	Ibo	MZ010501	11 748	58	0	0	0	29	27	-15 890
Nampula	Ilha De MoÃ§ambique	Ilha De MoÃ§ambique	MZ070401	55 006	50	0	0	0	7	8	5 870
Nampula	Muecate	Imala	MZ071701	46 672	1 220	146	134	90	414	160	-2 264 119
Cabo Delgado	Mueda	Imbuo	MZ011202	15 390	530	6	4	1	266	302	512 221
Cabo Delgado	Balama	Impiri	MZ010202	23 068	772	23	21	13	31	411	3 616 996
Nampula	Nacaroa	Intete	MZ072101	51 812	685	220	98	29	68	175	924 453
Nampula	Monapo	Itoculo	MZ071501	69 068	1 243	233	71	26	140	242	917 125
Nampula	Mogovolas	Iuluti	MZ071302	84 815	1 390	223	443	230	108	28	-704 431
Cabo Delgado	Chiure	Katapua	MZ010303	32 693	1 675	133	48	7	1 249	1073	-2 203 323
Cabo Delgado	Balama	Kuekue	MZ010203	28 079	2 470	163	45	22	283	1675	14 377 962
Nampula	Lalaua	Lalaua	MZ070501	83 816	2 871	176	247	103	446	538	943 494
Nampula	Larde	Larde	MZ070601	67 011	735	29	6	2	119	83	-259 721
Nampula	LiÃºpo	LiÃºpo	MZ070701	51 659	1 363	18	59	30	854	626	-2 789 967
Nampula	Ilha De MoÃ§ambique	Lumbo	MZ070402	14 795	131	21	2	0	10	13	42 424

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
Nampula	Mossuril	Lunga	MZ071601	49 899	1 825	145	2	1	466	670	269 5147
Nampula	Memba	Lurio	MZ071102	15 764	711	11	5	1	482	404	-715 924
Cabo Delgado	Nangade	M'Tamba	MZ011501	27 515	1 027	5	3	0	759	853	881 635
Cabo Delgado	Namuno	Machoca	MZ011402	35 266	931	107	70	37	31	233	1 850 329
Cabo Delgado	Macomia	Macomia	MZ010602	50 994	1 378	9	17	3	1025	900	-2 056 920
Cabo Delgado	Quissanga	Mahate	MZ011802	20 916	875	5	7	0	486	400	-1 267 275
Nampula	Malema	Malema	MZ070802	136 325	2 359	100	230	75	573	511	-495 130
Cabo Delgado	Montepuez	Mapupulo	MZ011101	35 551	743	156	115	14	119	145	253 500
Nampula	Mossuril	Matibane	MZ071602	52 930	707	123	16	4	63	68	116 253
Cabo Delgado	Balama	Mavala	MZ010204	20 416	1 284	73	76	17	358	563	1 890 824
Cabo Delgado	Chiure	Mazeze	MZ010304	17 475	693	9	2	0	362	414	448 104
Nampula	Memba	Mazula	MZ071103	182 390	1 570	195	134	53	467	239	-2 029 372
Cabo Delgado	Mocimboa Da Praia	Mbau	MZ011002	11 317	785	3	1	0	459	448	-311 948
Nampula	Meconta	Meconta	MZ070903	18 287	460	115	55	28	102	69	-287 417
Nampula	Mecuburi	Mecuburi	MZ071001	108 127	3 641	381	369	198	812	404	-3 738 432
Cabo Delgado	Mecufi	Mecufi	MZ010701	40 905	620	30	3	0	217	322	1 057 518
Cabo Delgado	Namuno	Meloco	MZ011403	31 816	1 406	171	122	17	386	721	2 658 865
Cabo Delgado	Meluco	Meluco	MZ010801	15 344	4 525	59	70	19	3 731	2952	-8 855 867
Nampula	Memba	Memba	MZ071104	100 259	1 385	401	137	63	102	55	-419 901
Cabo Delgado	Ancuabe	Mesa	MZ010102	36 354	1 414	30	3	1	1 230	1031	-2 833 165
Nampula	Lalaua	Meti	MZ070502	22 607	1 660	28	52	11	998	530	-4 288 200
Cabo Delgado	Ancuabe	Metoro	MZ010103	58 002	1 418	124	48	14	766	694	-901 676
Cabo Delgado	Metuge	Metuge	MZ010901	42 981	1 460	54	8	1	675	960	3 081 220

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
Cabo Delgado	Metuge	Mieze	MZ010902	64 820	128	6	0	0	42	18	-203 220
Nampula	Mecuburi	Milhana	MZ071002	19 929	1 275	163	110	51	423	328	-902 132
Cabo Delgado	Montepuez	Mirate	MZ011102	44 104	3 118	239	186	43	1 758	1645	-2 805 976
Cabo Delgado	Muidumbe	Miteda	MZ011302	29 757	474	9	4	2	267	318	543 570
Cabo Delgado	Mocimboa Da Praia	Mocimboa Da Praia	MZ011003	85 987	1 668	2	1	0	1 028	1050	-612 930
Nampula	Moma	Moma	MZ071402	233 737	2 510	47	64	34	389	231	-1 487 280
Nampula	Monapo	Monapo	MZ071502	179 258	1 233	276	36	15	234	224	30 785
Cabo Delgado	Montepuez	Montepuez	MZ011103	142 963	1 211	156	89	18	502	371	-1 582 012
Nampula	Mossuril	Mossuril	MZ071603	47 282	848	355	14	5	26	52	306 152
Cabo Delgado	Meluco	Muaguide	MZ010802	10 513	1 204	5	11	2	848	854	-89 684
Nampula	Mogovolas	Muatua	MZ071303	49 681	605	45	206	137	65	5	-553 404
Cabo Delgado	Macomia	Mucojo	MZ010603	17 807	1 117	7	1	0	544	395	-2 205 326
Nampula	Larde	Mucuali	MZ070602	42 875	1 109	20	45	31	574	364	-1 692 450
Nampula	Muecate	Muculoene	MZ071702	26 211	978	30	58	35	484	342	-1 148 091
Nampula	Muecate	Muecate	MZ071703	74 980	1 908	267	325	182	447	142	-2 737 846
Cabo Delgado	Mueda	Mueda	MZ011203	58 331	1 148	27	17	5	393	579	2 350 533
Cabo Delgado	Muidumbe	Muidumbe	MZ011303	31 261	1 096	15	3	1	776	878	1 096 657
Nampula	Mecuburi	Muite	MZ071003	48 841	1 498	173	128	69	135	243	977 216
Cabo Delgado	Mecufi	Murrebue	MZ010702	18 000	615	49	19	7	221	230	106 812
Nampula	Murrupula	Murrupula	MZ071802	149 689	1 958	176	182	130	355	261	-678 831
Nampula	Rapale	Mutivasse	MZ072202	31 127	810	59	73	51	241	109	-1 178 163
Nampula	Malema	Mutuali	MZ070803	70 820	2 007	88	120	39	296	424	1 358 456
Cabo Delgado	Namuno	N'Cumpe	MZ011404	40 692	721	82	48	19	6	98	849 645

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
Cabo Delgado	Mueda	N'Gapa	MZ011204	36 945	4 493	78	38	8	2 280	896	-11 253 966
Nampula	Nacala	Nacala	MZ071901	294 727	319	22	0	0	14	16	30 384
Nampula	Nacala-A-Velha	Nacala-A-Velha	MZ072002	77 709	845	366	26	9	16	20	78 215
Nampula	Nacaroa	Nacaroa	MZ072102	74 677	934	353	124	49	145	94	-464 639
Cabo Delgado	Montepuez	Nairoto	MZ011104	15 873	12 080	286	128	36	5 127	6011	7 832 234
Nampula	Rapale	Namaita	MZ072203	118 352	822	48	39	30	98	73	-209 083
Cabo Delgado	Montepuez	Namanhumbir	MZ011105	36 430	654	12	3	1	567	488	-1 160 938
Nampula	Erati	Namapa	MZ070302	150 885	2 259	385	81	28	448	336	-1 377 171
Nampula	Angoche	Namaponda	MZ070104	40 398	740	29	125	74	159	43	-1 187 210
Nampula	Mogovolas	Nametil	MZ071304	172 972	911	203	232	156	64	7	-527 062
Nampula	Meconta	Namialo	MZ070904	77 355	348	81	50	20	13	4	-83 961
Nampula	Mogincual	Namige	MZ071201	25 796	848	12	2	1	245	254	114 920
Nampula	Mecuburi	Namina	MZ071004	50 003	776	75	62	25	98	22	-659 033
Nampula	Erati	Namiroa	MZ070303	70 852	1 528	266	44	19	210	235	219 989
Cabo Delgado	Chiure	Namogelia	MZ010305	34 535	712	157	76	41	99	211	876 026
Cabo Delgado	Namuno	Namuno	MZ011405	110 718	1 239	247	191	60	83	297	1 893 680
Cabo Delgado	Nangade	Nangade	MZ011502	62 681	1 940	23	22	8	899	976	1 360 328
Nampula	Mogovolas	Nanhupo Rio	MZ071305	55 072	719	163	337	86	57	6	-476 486
Cabo Delgado	Mueda	Negomano	MZ011205	3 352	3 023	105	32	7	732	297	-4 056 738
Nampula	Monapo	Netia	MZ071503	211 250	1 040	144	73	33	41	22	-196 097
Nampula	Murrupula	Nihessiue	MZ071803	36 909	564	58	43	24	18	20	13 893
Cabo Delgado	Chiure	Ocua	MZ010306	54 689	1 048	153	46	16	397	250	-1 529 264
Cabo Delgado	Palma	Olumbi	MZ011601	12 433	1 232	2	0	0	789	880	958 203

Province	District	Posto	Admin code	Total population	Total area (sq km)	Agricultural area in 2016 (sq km)	Agricultural area in 2021 (sq km)	Draught affected agricultural area (sq km)	Forest area in 2016 (sq km)	Forest area in 2021 (sq km)	Biomass change (Mg)
Cabo Delgado	Palma	Palma	MZ011602	32 915	899	9	0	0	602	665	599 834
Cabo Delgado	Namuno	Papai	MZ011406	16 384	923	69	23	6	32	219	1 669 504
Cabo Delgado	Palma	Pundanhar	MZ011603	5 245	785	4	1	0	516	525	66 490
Nampula	LiÃºpo	Quinga	MZ070702	135 307	758	14	1	0	332	153	-2 137 478
Cabo Delgado	Palma	Quionga	MZ011604	7 568	607	1	0	0	360	382	22 108
Cabo Delgado	Ibo	Quirimba	MZ010502	2 294	16	0	0	0	5	3	-27 662
Cabo Delgado	Quissanga	Quissanga	MZ011803	4 882	455	6	3	0	252	245	-32 989
Cabo Delgado	Macomia	Quiterajo	MZ010604	10 626	642	2	2	0	464	437	-421 525
Nampula	Mogincual	Quixaxe	MZ071202	28 818	1 435	36	0	0	925	1054	967 535
Nampula	Rapale	Rapale	MZ072204	86 529	713	50	97	52	12	4	-76 612
Nampula	Ribaue	Ribaue	MZ072303	127 787	2 201	207	138	71	266	174	-855 269
Nampula	Nacaroa	Saua-Saua	MZ072103	24 505	1 095	233	140	84	304	172	-1 199 131

Sources: *Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries*. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021.
Population: Bondarenko M., Kerr D., Sorichetta A., and Tatem, A.J. 2020. *Census/projection-disaggregated gridded population datasets, adjusted to match the corresponding UNPD 2020 estimates, for 51 countries across sub-Saharan Africa using building footprints.* WorldPop, University of Southampton, UK. doi:10.5258/SOTON/WP00683

Appendix 02. Change in agriculture, forest and biomass between 2016 to 2021 and agricultural draught in 2021 by Posto

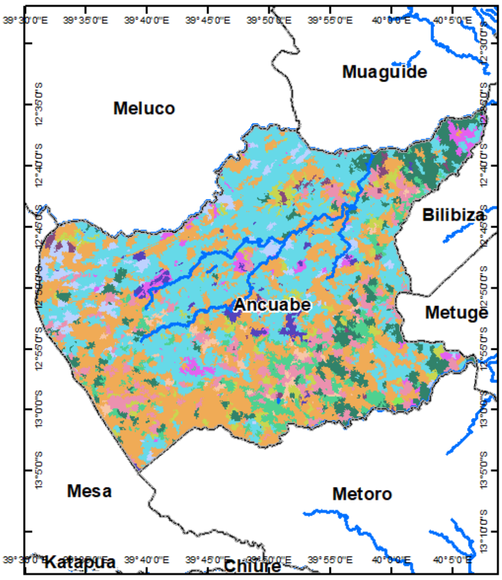
Posto	District	Province
Ancuabe	**Ancuabe**	**Cabo Delgado**

Total population	48102
Total area (sq km)	2090

N

0 12.5 25 50
Kilometers

Land cover 2016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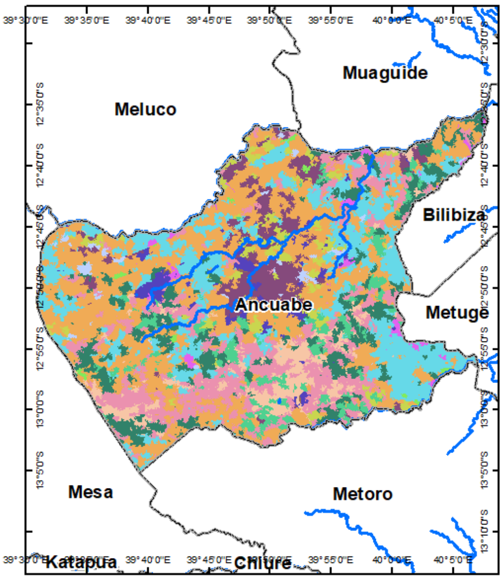
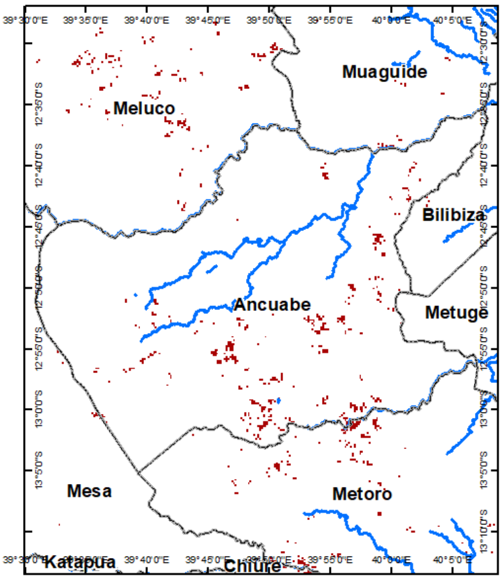
Meluco
Bilibiza
Ancuabe
Metuge
Mesa
Metoro
Katapua
Chiure

Land cover 2021


Muaguide
Meluco
Bilibiza
Ancuabe
Metuge
Mesa
Metoro
Katapua
Chiure

Drought in 2021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Bilibiza
Ancuabe
Metuge
Mesa
Metoro
Katapua
Chiure

Forest area in 2016 (sq km)	1484
Forest area in 2021 (sq km)	1077
Net biomass change in Mg (2016 - 2021)	-3904611
Agricultural area in 2016 (sq km)	117
Agricultural area in 2021 (sq km)	104
Drought (% of agricultural area in 2021)	33

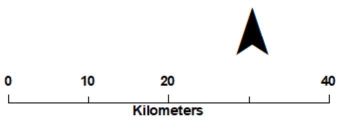
Legend

▭ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mesa	**Ancuabe**	**Cabo Delgado**

Total population	36354
Total area (sq km)	1414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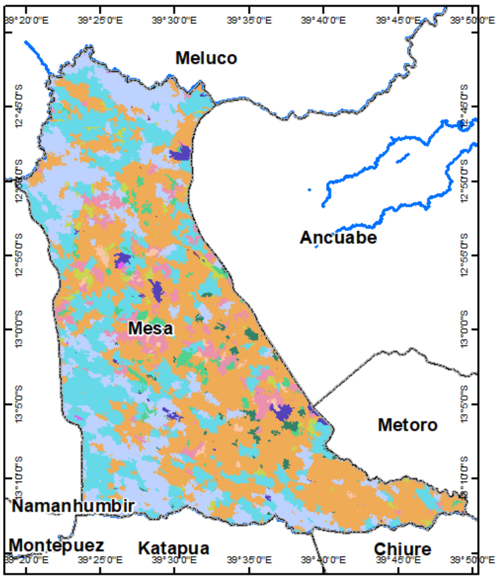
Land cover 2016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Meluco
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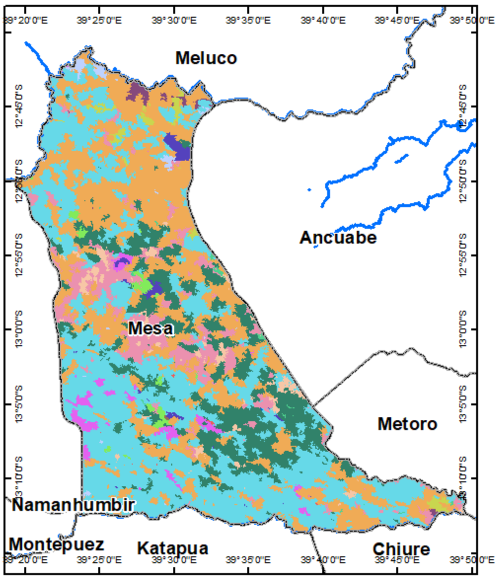
Metoro
Namanhumbir
Montepuez
Katapua
Chiure

Land cover 2021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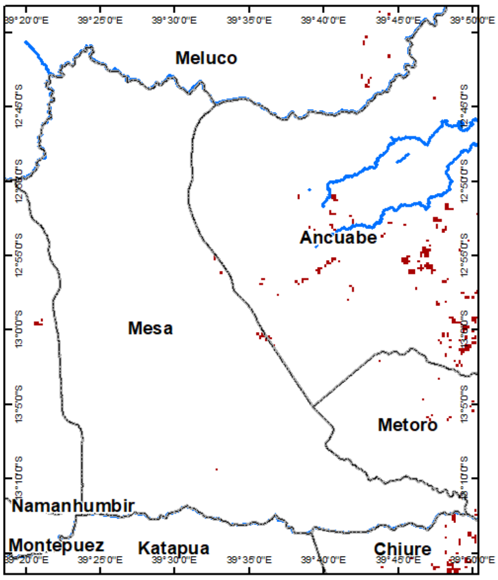
Namanhumbir
Montepuez
Katapua
Chiure

Drought in 2021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Metoro
Namanhumbir
Montepuez
Katapua
Chiure

Forest area in 2016 (sq km)	1230
Forest area in 2021 (sq km)	1031
Net biomass change in Mg (2016 - 2021)	-2833165

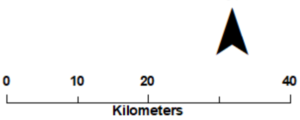
Agricultural area in 2016 (sq km)	30
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	31

Legend

☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Metoro	**Ancuabe**	**Cabo Delgado**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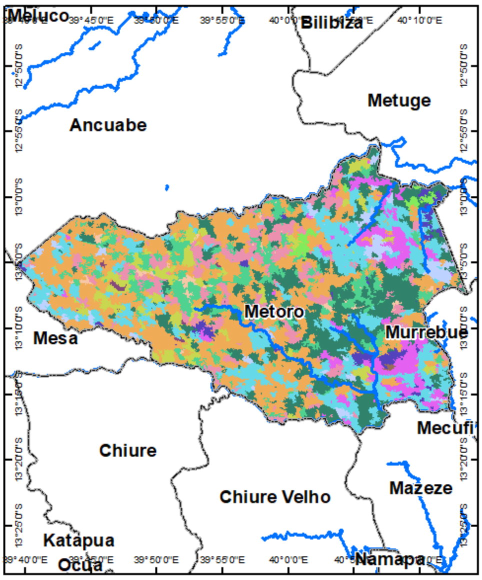
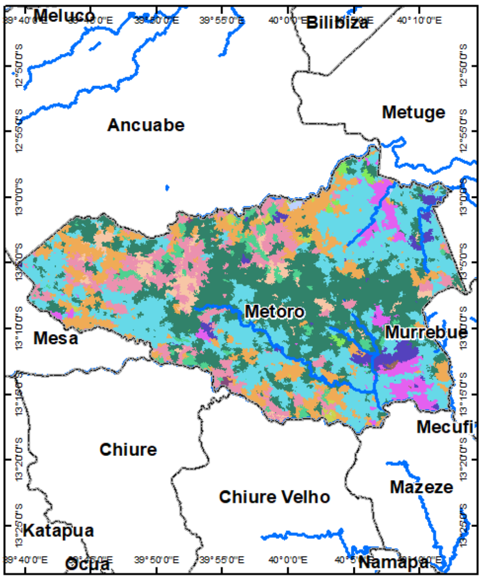
Kilometers

Total population	58002
Total area (sq km)	1418

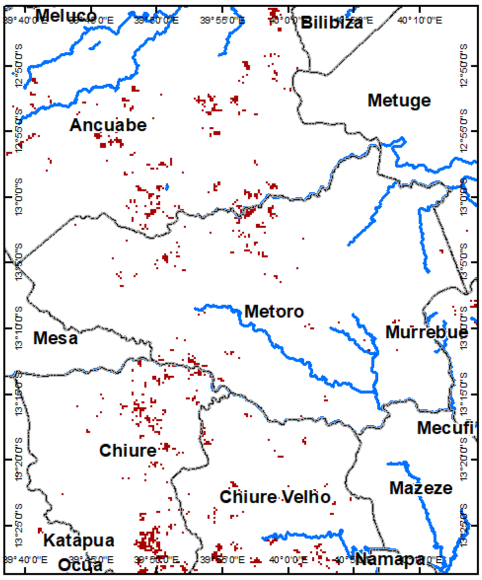
Land cover 2016


Meluco
Bilibiza
Metuge
Ancuabe
Metoro
Murrebue
Mesa
Mecufi
Chiure
Chiure Velho
Mazeze
Katapua
Ocua
Namapa

Land cover 2021


Meluco
Bilibiza
Metuge
Ancuabe
Metoro
Murrebue
Mesa
Mecufi
Chiure
Chiure Velho
Mazeze
Katapua
Ocua
Namapa

Drought in 2021


Meluco
Bilibiza
Metuge
Ancuabe
Metoro
Murrebue
Mesa
Mecufi
Chiure
Chiure Velho
Mazeze
Katapua
Ocua
Namapa

Forest area in 2016 (sq km)	766
Forest area in 2021 (sq km)	694
Net biomass change in Mg (2016 - 2021)	-901676

Agricultural area in 2016 (sq km)	124
Agricultural area in 2021 (sq km)	48
Drought (% of agricultural area in 2021)	30

Legend

- ⬜ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Balama

District

Balama

Province

Cabo Delgado

Total population	97921
Total area (sq km)	971

N

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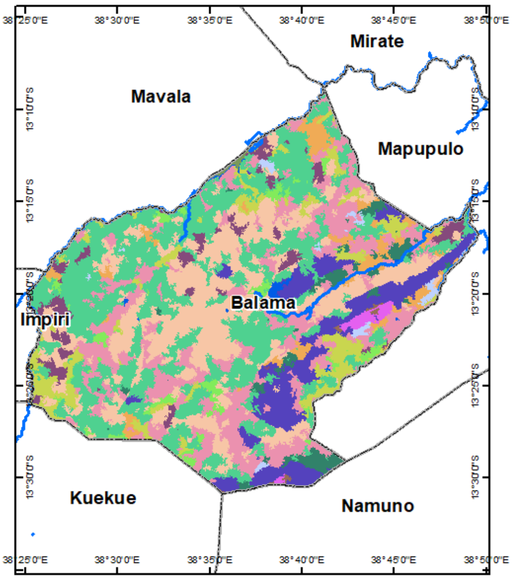
Kilometers

Land cover 2016


Mirate
Mavala
Mapupulo
Balama
Impiri
Kuekue
Namuno
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38°40'0"E
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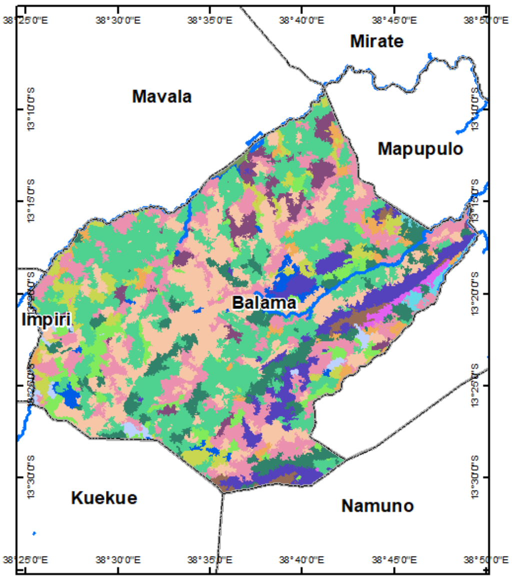
Land cover 2021


Mirate
Mavala
Mapupulo
Balama
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Kuekue
Namuno
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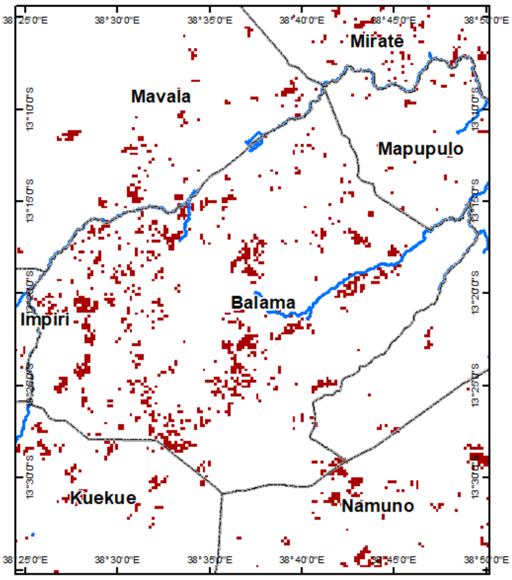
Drought in 2021


Mirate
Mavala
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Forest area in 2016 (sq km)	54
Forest area in 2021 (sq km)	64
Net biomass change in Mg (2016 - 2021)	141259
Agricultural area in 2016 (sq km)	298
Agricultural area in 2021 (sq km)	267
Drought (% of agricultural area in 2021)	30

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

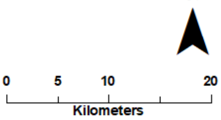
Impiri

District

Balama

Province

Cabo Delgado


N
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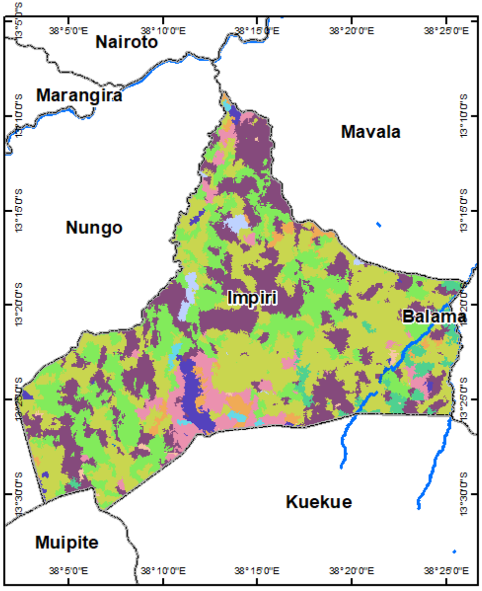
20
Kilometers

Total population	23068
Total area (sq km)	772

Land cover 2016


Nairoto
Marangira
Mavala
Nungo
Impiri
Balama
Kuekue
Muipite
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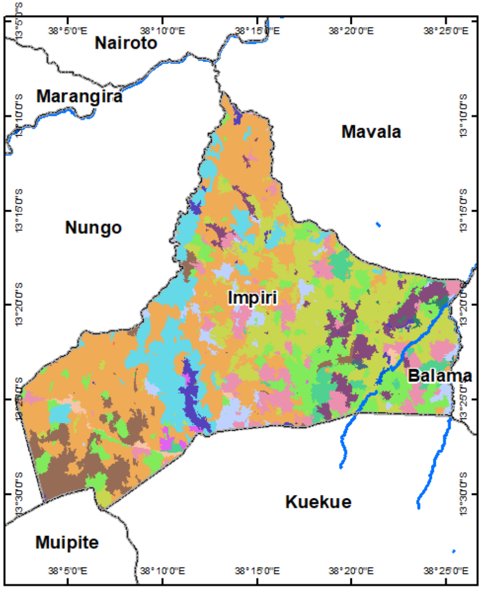
Land cover 2021


Nairoto
Marangira
Mavala
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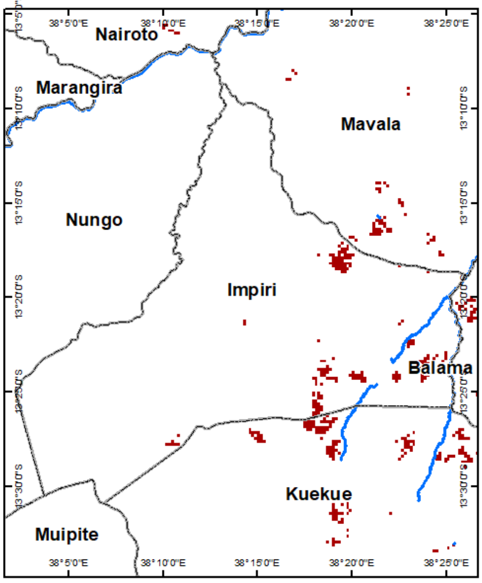
Drought in 2021


Nairoto
Marangira
Mavala
Nungo
Impiri
Balama
Kuekue
Muipite
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38°25'0"E
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13°30'0"S

Forest area in 2016 (sq km)	31
Forest area in 2021 (sq km)	411
Net biomass change in Mg (2016 - 2021)	3616996

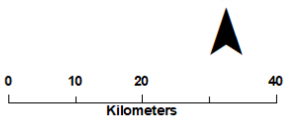
Agricultural area in 2016 (sq km)	23
Agricultural area in 2021 (sq km)	21
Drought (% of agricultural area in 2021)	63

Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	■ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Kuekue	**Balama**	**Cabo Delgado**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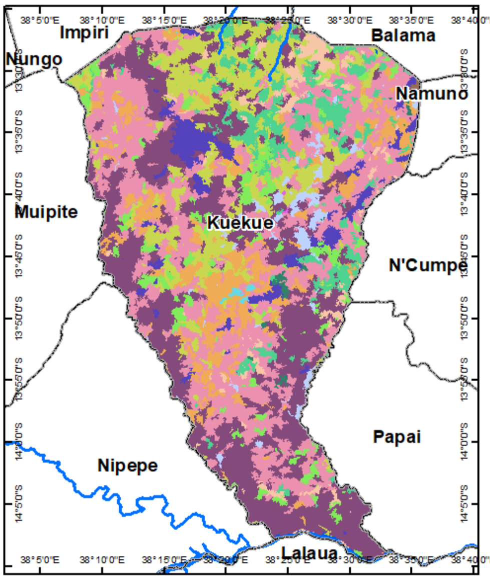
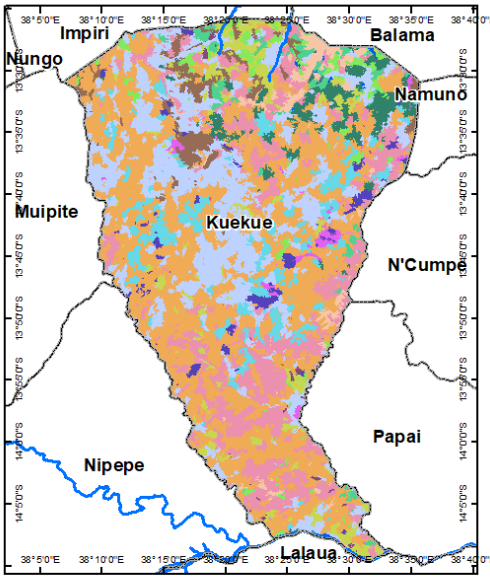
Kilometers

Total population	**28079**
Total area (sq km)	**2470**

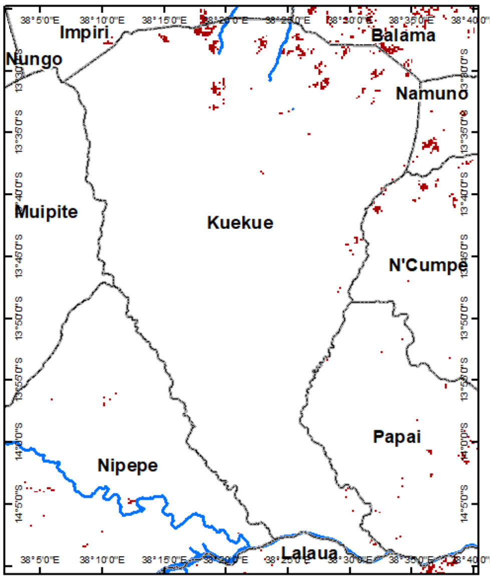
Land cover 2016


Impiri
Balama
Nungo
Namuno
Muipite
Kuekue
N'Cumpe
Papai
Nipepe
Lalaua

Land cover 2021


Impiri
Balama
Nungo
Namuno
Muipite
Kuekue
N'Cumpe
Papai
Nipepe
Lalaua

Drought in 2021


Impiri
Balama
Nungo
Namuno
Muipite
Kuekue
N'Cumpe
Papai
Nipepe
Lalaua

Forest area in 2016 (sq km)	**283**
Forest area in 2021 (sq km)	**1675**
Net biomass change in Mg (2016 - 2021)	**14377962**
Agricultural area in 2016 (sq km)	**163**
Agricultural area in 2021 (sq km)	**45**
Drought (% of agricultural area in 2021)	**50**

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

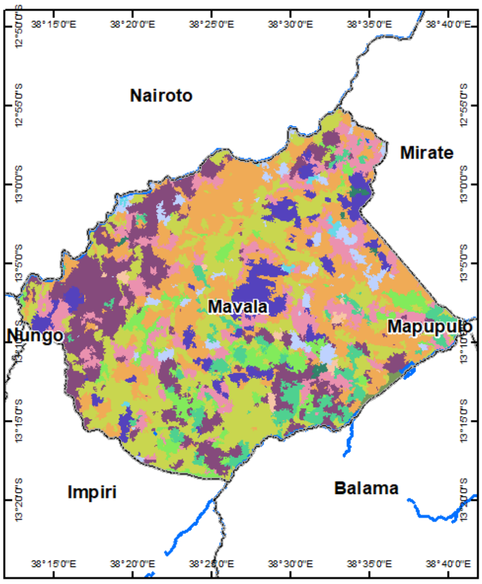
- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mavala	**Balama**	**Cabo Delgado**

Total population	20416
Total area (sq km)	1284

Land cover 2016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Kilometers
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38°40'0"E
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13°15'0"S
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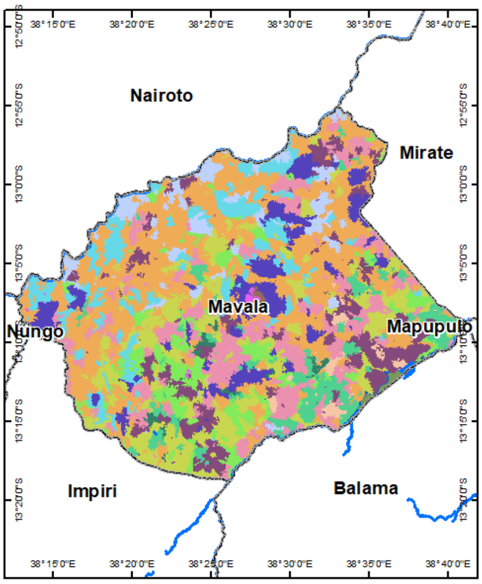
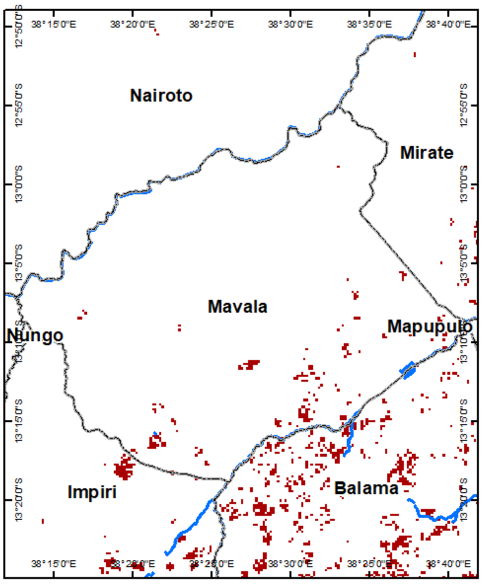
Nairoto
Mirate
Mavala
Nungo
Mapupulo
Impiri
Balama

Land cover 2021


Nairoto
Mirate
Mavala
Nungo
Mapupulo
Impiri
Balama

Drought in 2021


Nairoto
Mirate
Mavala
Nungo
Mapupulo
Impiri
Balama

Forest area in 2016 (sq km)	358
Forest area in 2021 (sq km)	563
Net biomass change in Mg (2016 - 2021)	1890824
Agricultural area in 2016 (sq km)	73
Agricultural area in 2021 (sq km)	76
Drought (% of agricultural area in 2021)	22

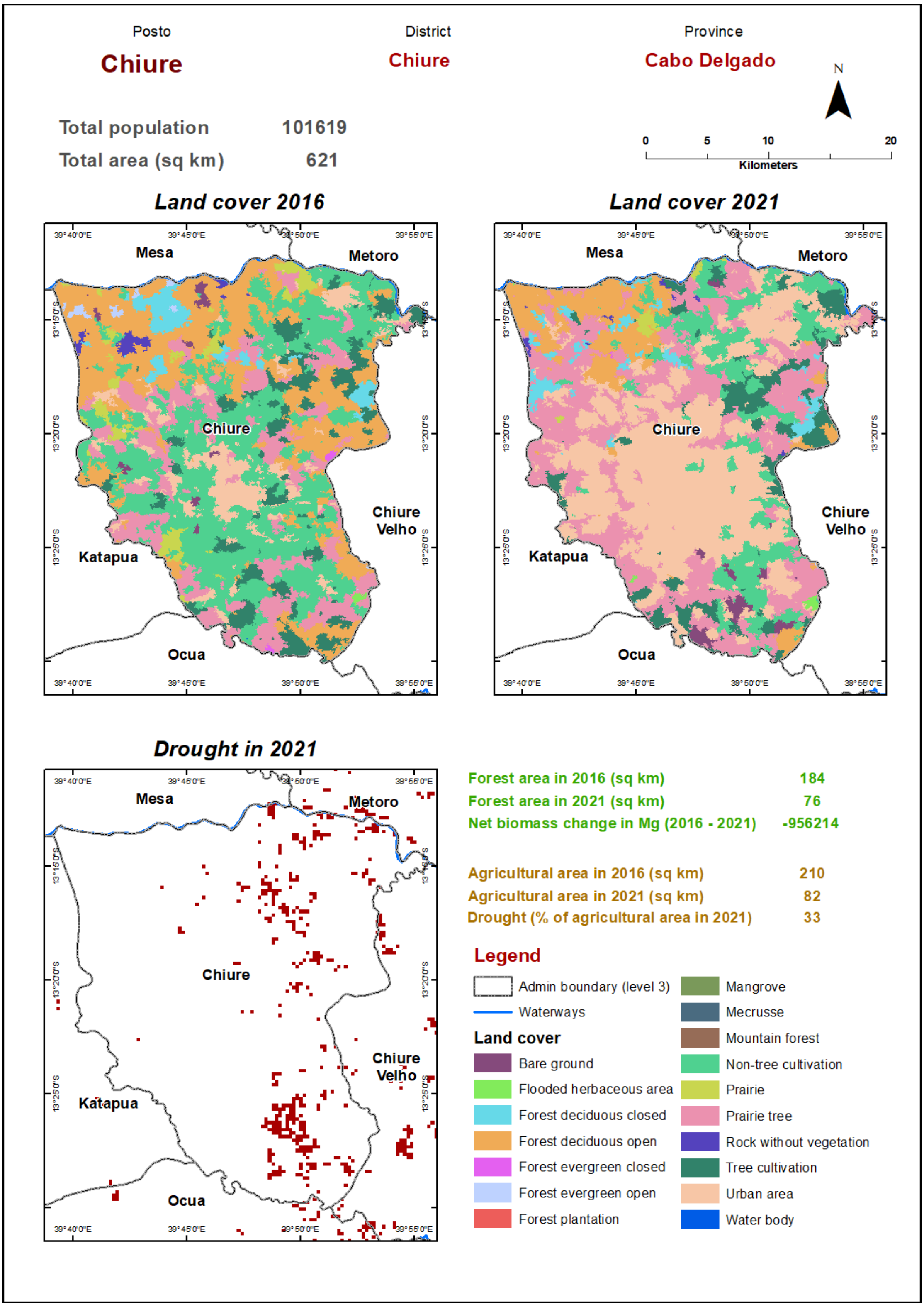
Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

■ Bare ground	■ Mangrove
■ Flooded herbaceous area	■ Mecrusse
■ Forest deciduous closed	■ Mountain forest
■ Forest deciduous open	■ Non-tree cultivation
■ Forest evergreen closed	■ Prairie
■ Forest evergreen open	■ Prairie tree
■ Forest plantation	■ Rock without vegetation
	■ Tree cultivation
	■ Urban area
	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Posto
Chiure
District
Chiure
Province
Cabo Delgado
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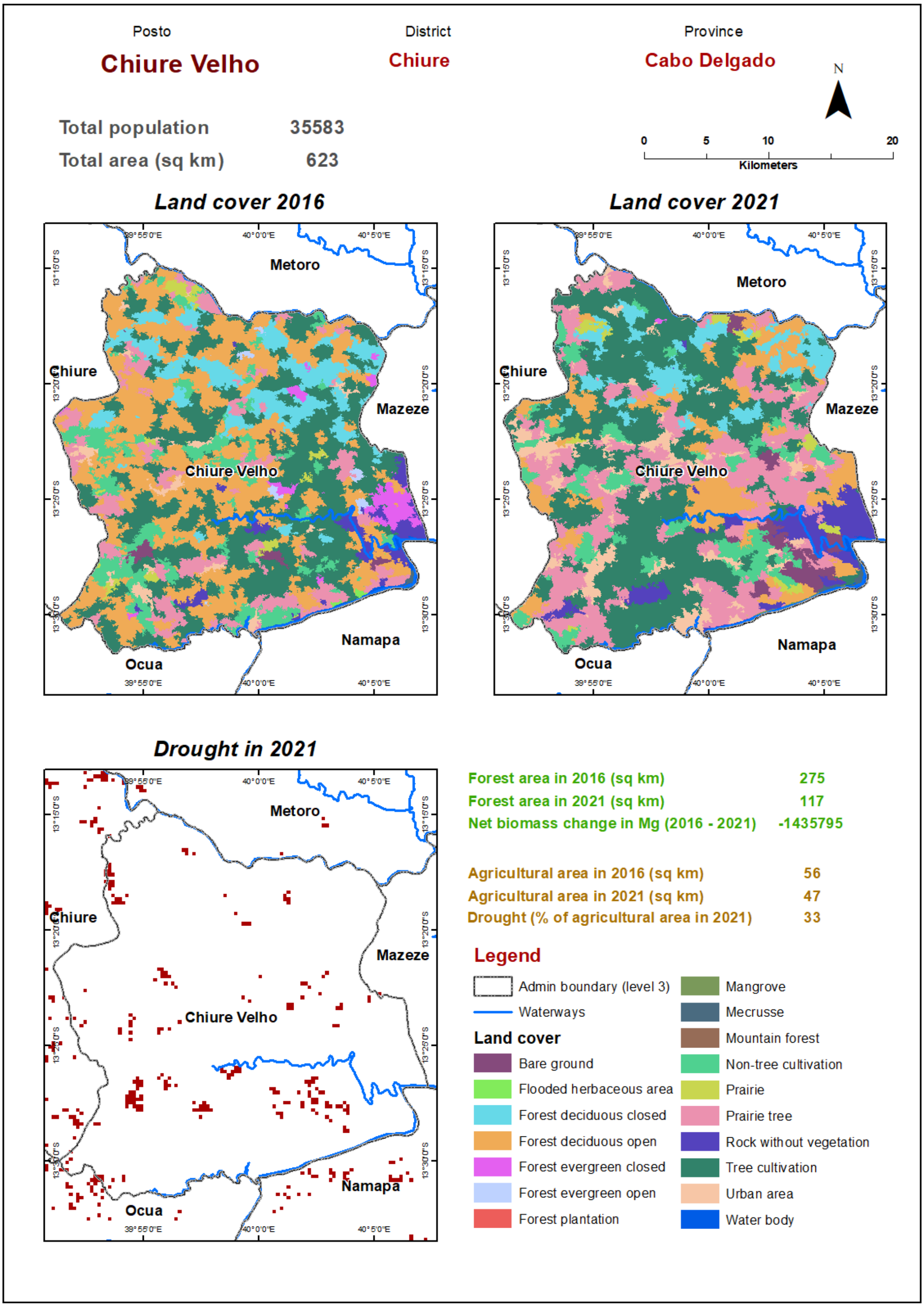
Kilometers
Land cover 2016
Land cover 2021
Drought in 2021
Mesa
Metoro
Chiure
Chiure Velho
Katapua
Ocua
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
13°15'0"S
13°20'0"S
13°25'0"S
Legend
Admin boundary (level 3)
Waterways
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Total population	101619
Total area (sq km)	621

Forest area in 2016 (sq km)	184
Forest area in 2021 (sq km)	76
Net biomass change in Mg (2016 - 2021)	-956214
Agricultural area in 2016 (sq km)	210
Agricultural area in 2021 (sq km)	82
Drought (% of agricultural area in 2021)	33

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Posto
Chiure Velho
District
Chiure
Province
Cabo Delgado
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Kilometers
Land cover 2016
Land cover 2021
Drought in 2021
Metoro
Chiure
Mazeze
Chiure Velho
Ocua
Namapa
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13°30'0"S
Legend
Admin boundary (level 3)
Waterways
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

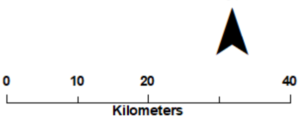
Total population	35583
Total area (sq km)	623

Forest area in 2016 (sq km)	275
Forest area in 2021 (sq km)	117
Net biomass change in Mg (2016 - 2021)	-1435795
Agricultural area in 2016 (sq km)	56
Agricultural area in 2021 (sq km)	47
Drought (% of agricultural area in 2021)	33

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Katapua	**Chiure**	**Cabo Delgado**

Total population	32693
Total area (sq km)	1675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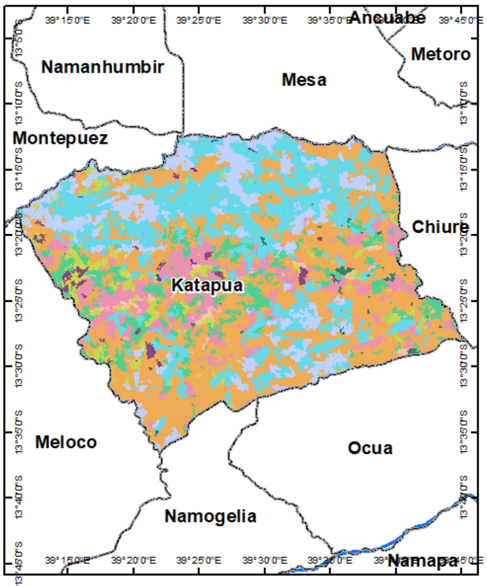
Kilometers

Land cover 2016


Ancuabe
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Mesa
Metoro
Montepuez
Chiure
Katapua
Meloco
Ocua
Namogelia
Namapa
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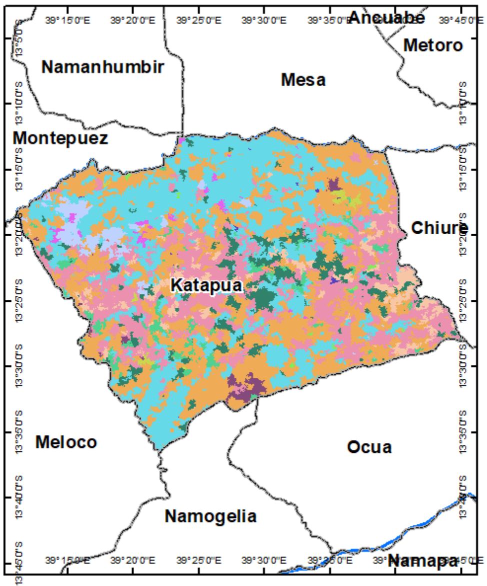
Land cover 2021


Ancuabe
Namanhumbir
Mesa
Metoro
Montepuez
Chiure
Katapua
Meloco
Ocua
Namogelia
Namapa
39°15'0"E
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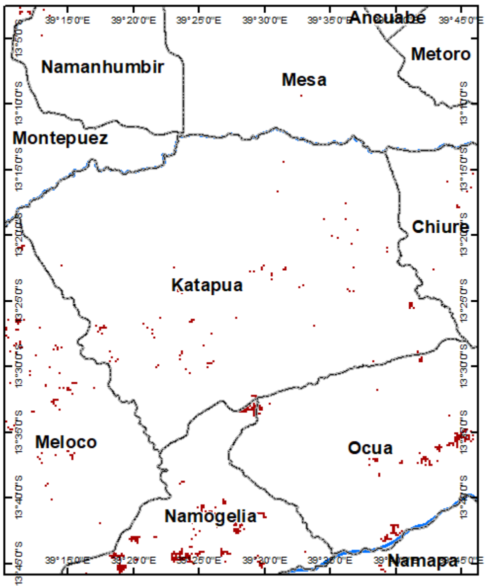
13°45'0"S

Drought in 2021


Ancuabe
Namanhumbir
Mesa
Metoro
Montepuez
Chiure
Katapua
Meloco
Ocua
Namogelia
Namapa
39°15'0"E
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13°35'0"S
13°40'0"S
13°45'0"S

Forest area in 2016 (sq km)	1249
Forest area in 2021 (sq km)	1073
Net biomass change in Mg (2016 - 2021)	-2203323

Agricultural area in 2016 (sq km)	133
Agricultural area in 2021 (sq km)	48
Drought (% of agricultural area in 2021)	15

Legend

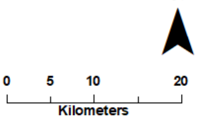
- ☐ Admin boundary (level 3)
- ─ Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mazeze	**Chiure**	**Cabo Delgado**


N
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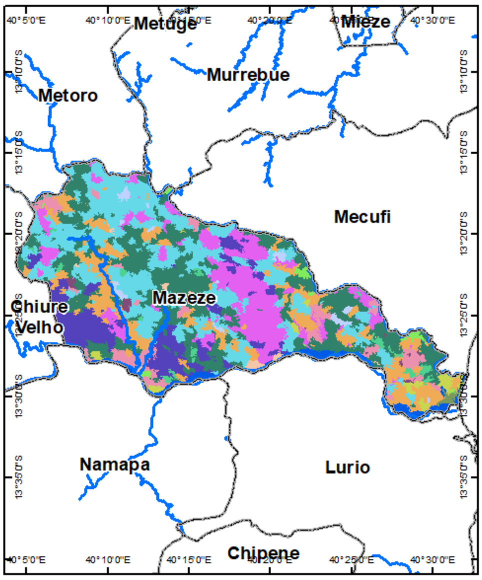
20
Kilometers

Total population	17475
Total area (sq km)	693

Land cover 2016


Metuge
Mieze
Murrebue
Metoro
Mecufi
Mazeze
Chiure Velho
Namapa
Lurio
Chipene
40°5'0"E
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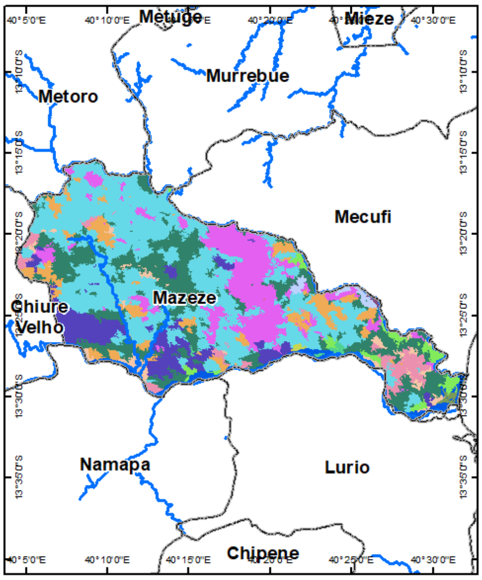
13°35'0"S

Land cover 2021


Metuge
Mieze
Murrebue
Metoro
Mecufi
Mazeze
Chiure Velho
Namapa
Lurio
Chipene
40°5'0"E
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40°15'0"E
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40°25'0"E
40°30'0"E
13°10'0"S
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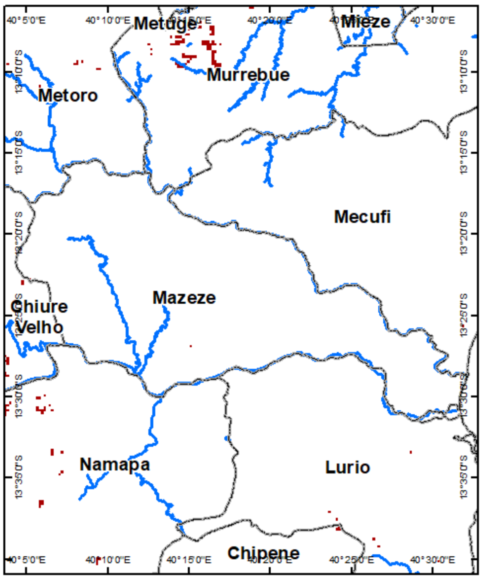
13°20'0"S
13°25'0"S
13°30'0"S
13°35'0"S

Drought in 2021


Metuge
Mieze
Murrebue
Metoro
Mecufi
Mazeze
Chiure Velho
Namapa
Lurio
Chipene
40°5'0"E
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13°25'0"S
13°30'0"S
13°35'0"S

Forest area in 2016 (sq km)	362
Forest area in 2021 (sq km)	414
Net biomass change in Mg (2016 - 2021)	448104
Agricultural area in 2016 (sq km)	9
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	7

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

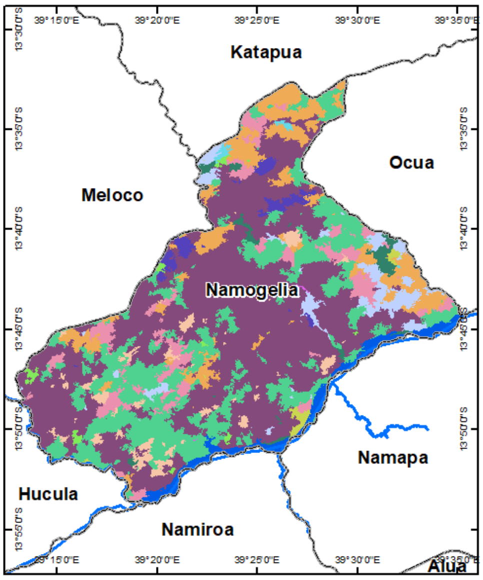
Posto	District	Province
Namogelia	**Chiure**	**Cabo Delgado**

Total population	**34535**
Total area (sq km)	**712**

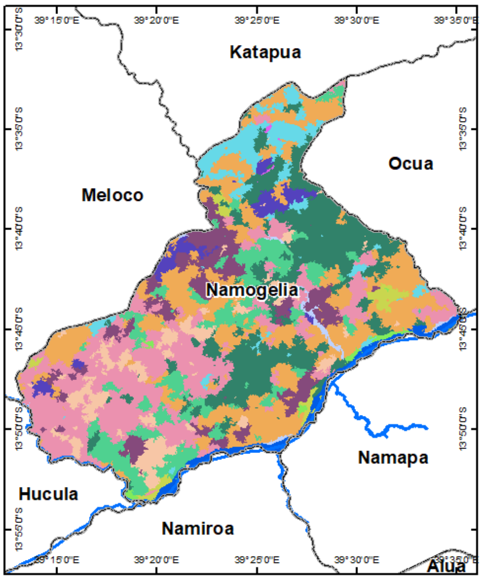
N

0 5 10 20 Kilometers

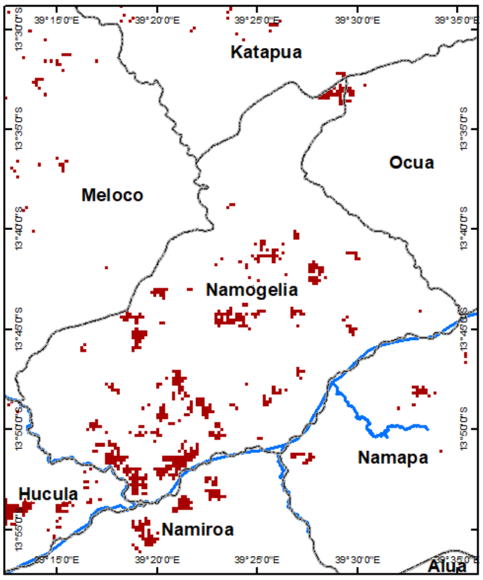
Land cover 2016


Katapua
Ocua
Meloco
Namogelia
Namapa
Hucula
Namiroa
Alua
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Land cover 2021


Katapua
Ocua
Meloco
Namogelia
Namapa
Hucula
Namiroa
Alua
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Drought in 2021


Katapua
Ocua
Meloco
Namogelia
Namapa
Hucula
Namiroa
Alua
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Forest area in 2016 (sq km)	**99**
Forest area in 2021 (sq km)	**211**
Net biomass change in Mg (2016 - 2021)	**876026**
Agricultural area in 2016 (sq km)	**157**
Agricultural area in 2021 (sq km)	**76**
Drought (% of agricultural area in 2021)	**55**

Legend

- ☐ Admin boundary (level 3)
- ― Waterways

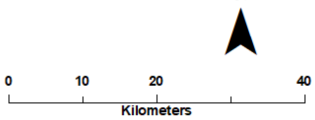
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

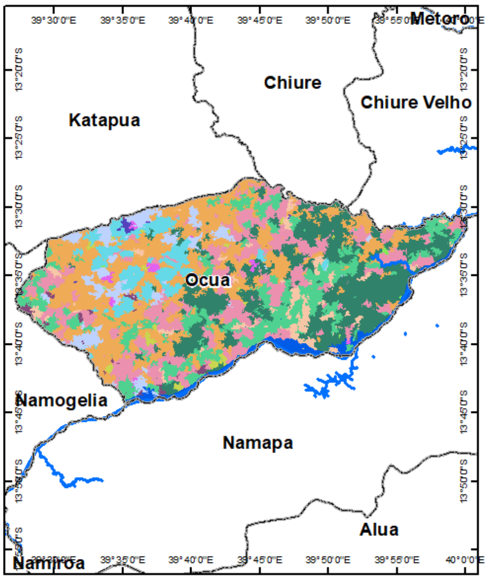
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Ocua	**Chiure**	**Cabo Delgado**

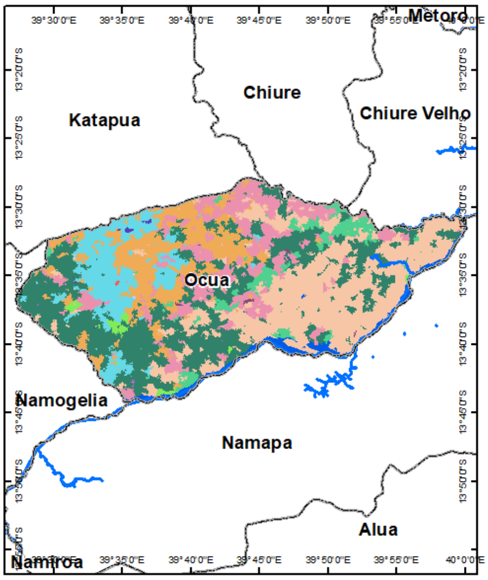
Total population	54689
Total area (sq km)	1048


N
0
10
20
40
Kilometers

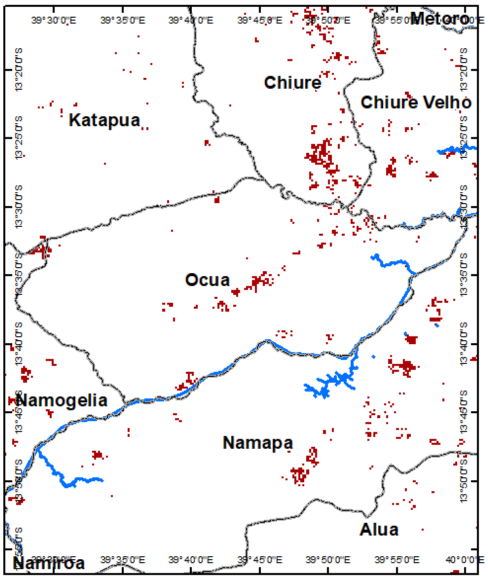
Land cover 2016


Metoro
Chiure
Chiure Velho
Katapua
Ocua
Namogelia
Namapa
Alua
Namiroa
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
13°20'0"S
13°25'0"S
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S

Land cover 2021


Metoro
Chiure
Chiure Velho
Katapua
Ocua
Namogelia
Namapa
Alua
Namiroa
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
13°20'0"S
13°25'0"S
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S

Drought in 2021


Metoro
Chiure
Chiure Velho
Katapua
Ocua
Namogelia
Namapa
Alua
Namiroa
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
13°20'0"S
13°25'0"S
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S

Forest area in 2016 (sq km)	397
Forest area in 2021 (sq km)	250
Net biomass change in Mg (2016 - 2021)	-1529264
Agricultural area in 2016 (sq km)	153
Agricultural area in 2021 (sq km)	46
Drought (% of agricultural area in 2021)	35

Legend

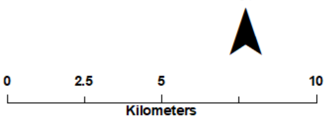
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

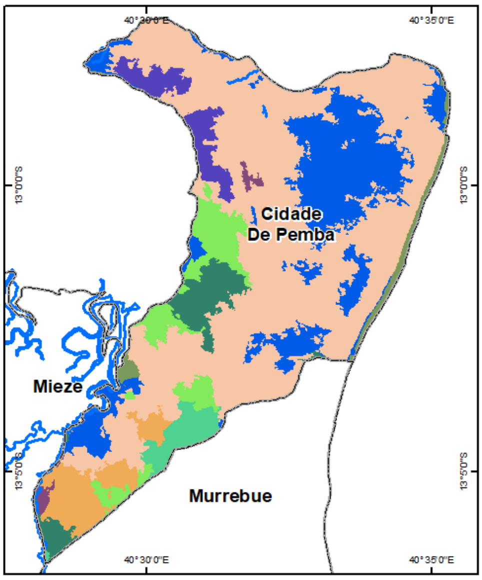
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Cidade De Pemba	**Cidade De Pemba**	**Cabo Delgado**

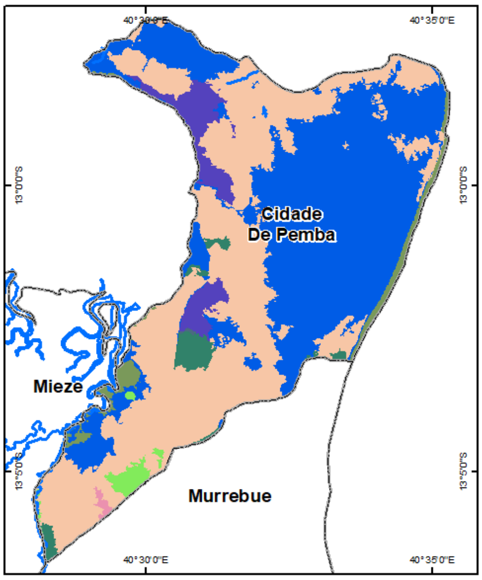

N
0
2.5
5
10
Kilometers

Total population	260693
Total area (sq km)	100

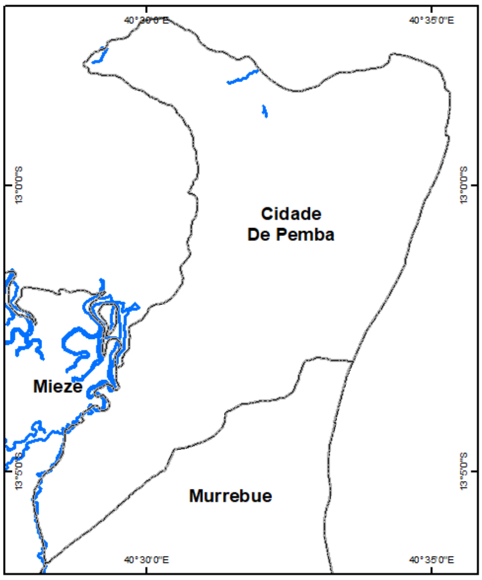
Land cover 2016


40°30'0"E
40°35'0"E
13°0'0"S
13°5'0"S
Cidade De Pemba
Mieze
Murrebue

Land cover 2021


40°30'0"E
40°35'0"E
13°0'0"S
13°5'0"S
Cidade De Pemba
Mieze
Murrebue

Drought in 2021


40°30'0"E
40°35'0"E
13°0'0"S
13°5'0"S
Cidade De Pemba
Mieze
Murrebue

Forest area in 2016 (sq km)	7
Forest area in 2021 (sq km)	3
Net biomass change in Mg (2016 - 2021)	-35632
Agricultural area in 2016 (sq km)	3
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

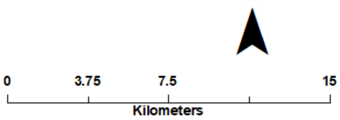
☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

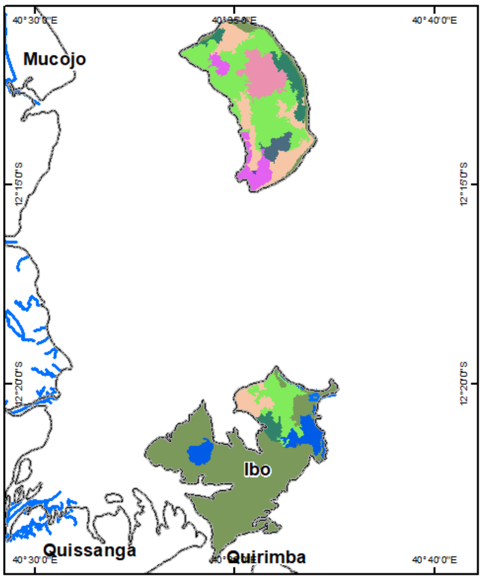
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Ibo	**Ibo**	**Cabo Delgado**

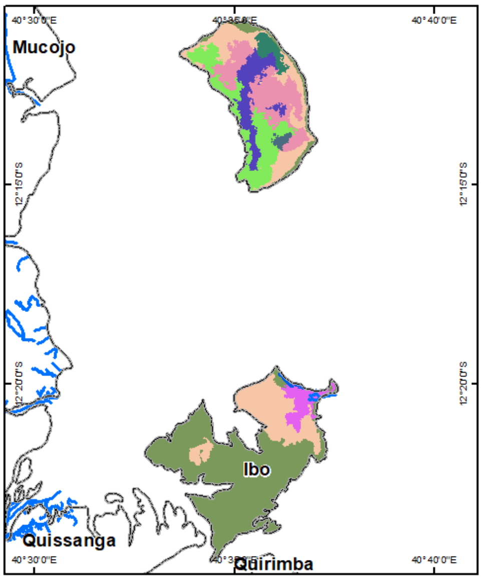

N
0
3.75
7.5
15
Kilometers

Total population	**11748**
Total area (sq km)	**58**

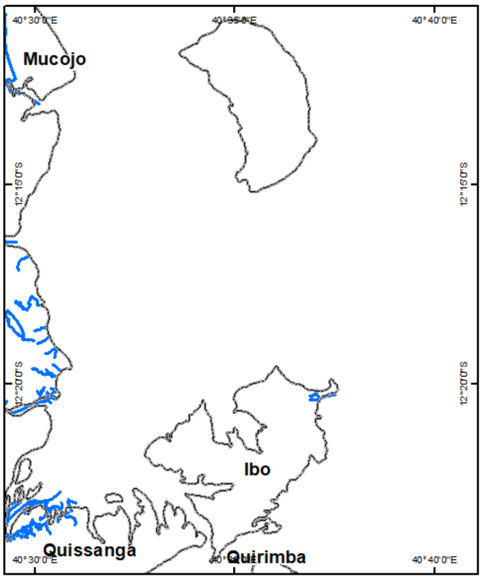
Land cover 2016


40°30'0"E
40°35'0"E
40°40'0"E
12°15'0"S
12°20'0"S
Mucojo
Ibo
Quissanga
Quirimba

Land cover 2021


40°30'0"E
40°35'0"E
40°40'0"E
12°15'0"S
12°20'0"S
Mucojo
Ibo
Quissanga
Quirimba

Drought in 2021


40°30'0"E
40°35'0"E
40°40'0"E
12°15'0"S
12°20'0"S
Mucojo
Ibo
Quissanga
Quirimba

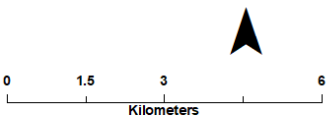
Forest area in 2016 (sq km)	**29**
Forest area in 2021 (sq km)	**27**
Net biomass change in Mg (2016 - 2021)	**-15890**
Agricultural area in 2016 (sq km)	**0**
Agricultural area in 2021 (sq km)	**0**
Drought (% of agricultural area in 2021)	**0**

Legend

☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	■	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	■	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
🟦	Forest evergreen open	■	Urban area
🟥	Forest plantation	🟦	Water body

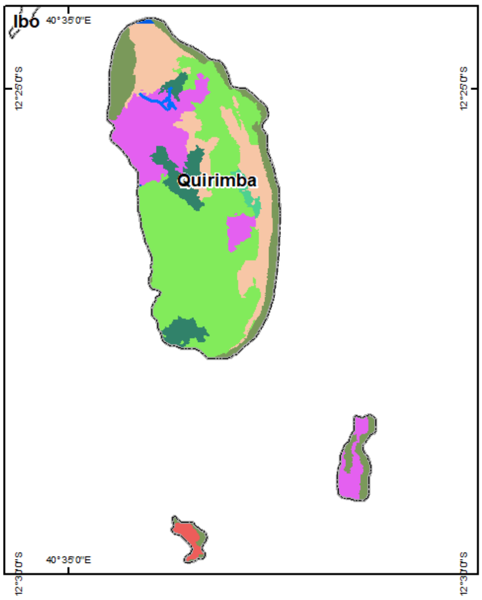
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Quirimba	**Ibo**	**Cabo Delgado**

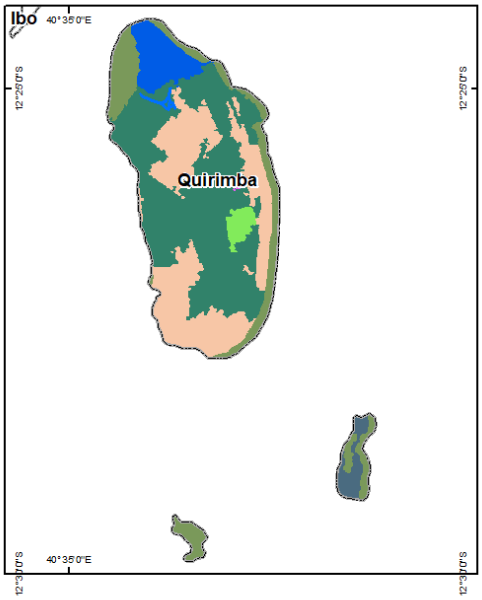

N
0
1.5
3
6
Kilometers

Total population	2294
Total area (sq km)	16

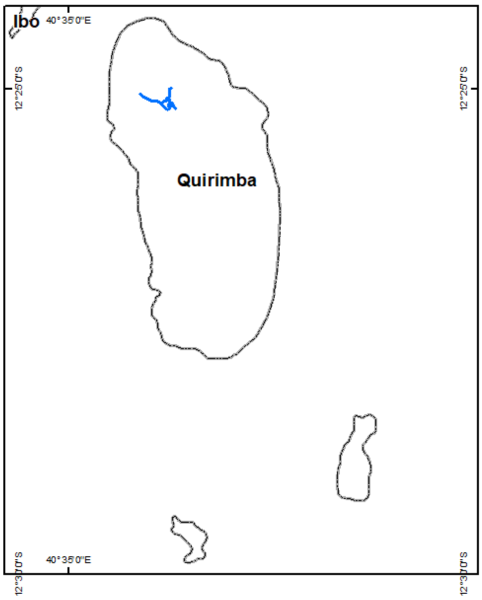
Land cover 2016


Ibo
40°35'0"E
12°25'0"S
Quirimba
40°35'0"E
12°30'0"S

Land cover 2021


Ibo
40°35'0"E
12°25'0"S
Quirimba
40°35'0"E
12°30'0"S

Drought in 2021


Ibo
40°35'0"E
12°25'0"S
Quirimba
40°35'0"E
12°30'0"S

Forest area in 2016 (sq km)	5
Forest area in 2021 (sq km)	3
Net biomass change in Mg (2016 - 2021)	-27662

Agricultural area in 2016 (sq km)	0
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

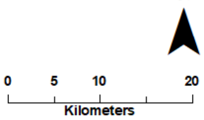
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

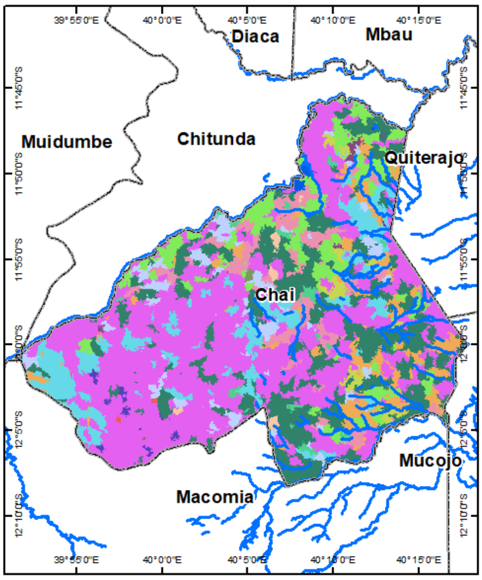
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Chai	**Macomia**	**Cabo Delgado**

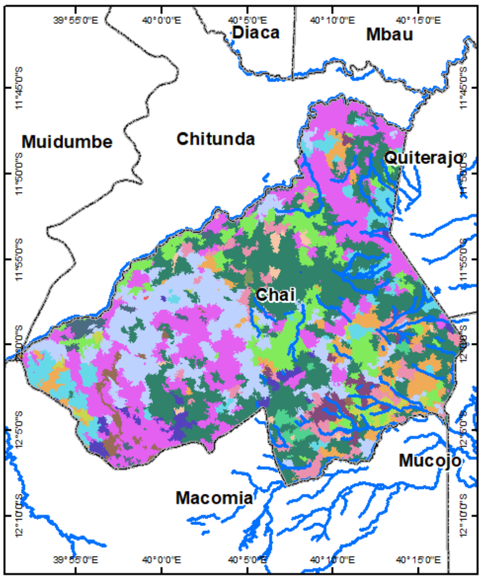

N
0
5
10
20
Kilometers

Total population	15604
Total area (sq km)	1054

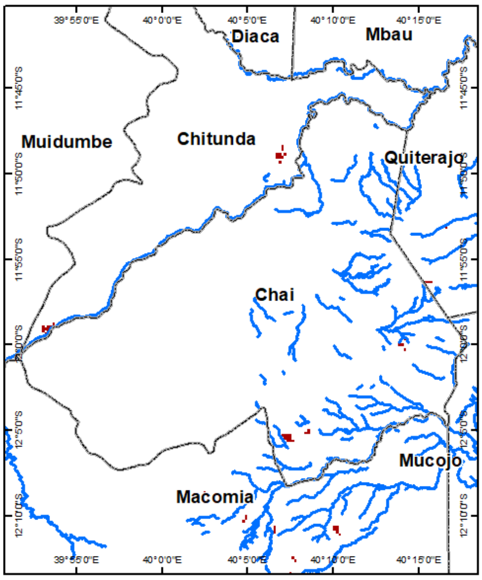
Land cover 2016


Diaca
Mbau
Muidumbe
Chitunda
Quiterajo
Chai
Mucojo
Macomia
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S
12°5'0"S
12°10'0"S

Land cover 2021


Diaca
Mbau
Muidumbe
Chitunda
Quiterajo
Chai
Mucojo
Macomia
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S
12°5'0"S
12°10'0"S

Drought in 2021


Diaca
Mbau
Muidumbe
Chitunda
Quiterajo
Chai
Mucojo
Macomia
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S
12°5'0"S
12°10'0"S

Forest area in 2016 (sq km)	649
Forest area in 2021 (sq km)	538
Net biomass change in Mg (2016 - 2021)	-1315365

Agricultural area in 2016 (sq km)	11
Agricultural area in 2021 (sq km)	9
Drought (% of agricultural area in 2021)	14

Legend

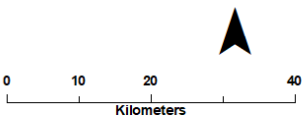
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- Bare ground
- Flooded herbaceous area
- Forest deciduous closed
- Forest deciduous open
- Forest evergreen closed
- Forest evergreen open
- Forest plantation
- Mangrove
- Mecrusse
- Mountain forest
- Non-tree cultivation
- Prairie
- Prairie tree
- Rock without vegetation
- Tree cultivation
- Urban area
- Water body

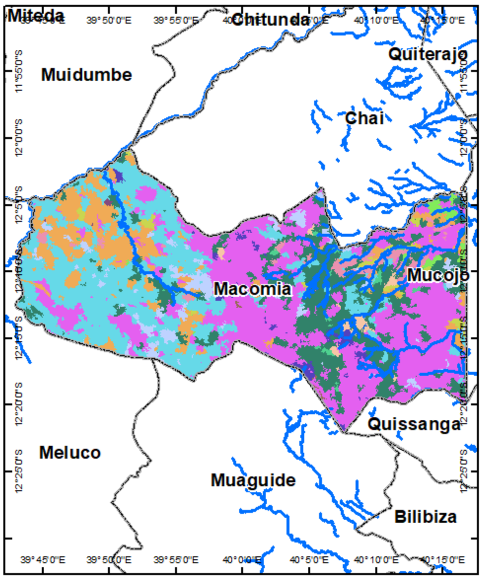
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Macomia	**Macomia**	**Cabo Delgado**

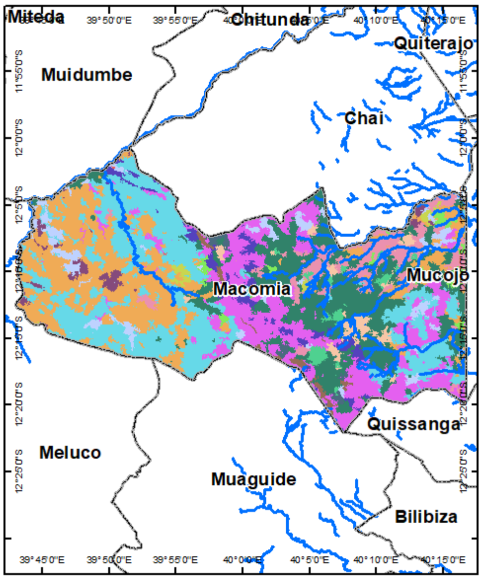

N
0
10
20
40
Kilometers

Total population	50994
Total area (sq km)	1378

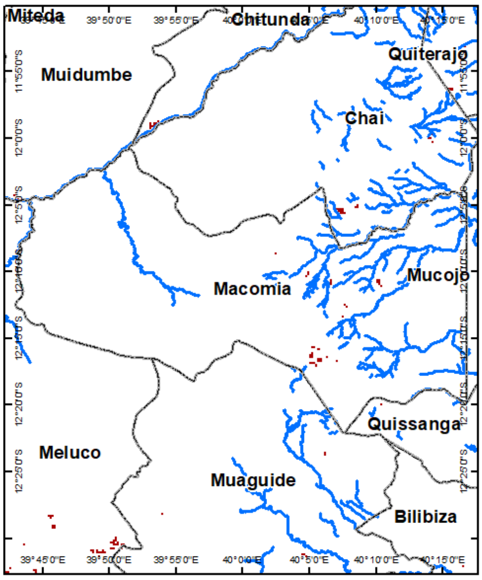
Land cover 2016


Miteda
Chitunda
Quiterajo
Muidumbe
Chai
Macomia
Mucojo
Quissanga
Meluco
Muaguide
Bilibiza

Land cover 2021


Miteda
Chitunda
Quiterajo
Muidumbe
Chai
Macomia
Mucojo
Quissanga
Meluco
Muaguide
Bilibiza

Drought in 2021


Miteda
Chitunda
Quiterajo
Muidumbe
Chai
Macomia
Mucojo
Quissanga
Meluco
Muaguide
Bilibiza

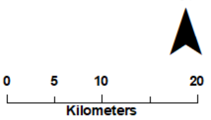
Forest area in 2016 (sq km)	1025
Forest area in 2021 (sq km)	900
Net biomass change in Mg (2016 - 2021)	-2056920
Agricultural area in 2016 (sq km)	9
Agricultural area in 2021 (sq km)	17
Drought (% of agricultural area in 2021)	16

Legend

☐ Admin boundary (level 3)	▨ Mangrove
— Waterways	▨ Mecrusse
Land cover	▨ Mountain forest
▨ Bare ground	▨ Non-tree cultivation
▨ Flooded herbaceous area	▨ Prairie
▨ Forest deciduous closed	▨ Prairie tree
▨ Forest deciduous open	▨ Rock without vegetation
▨ Forest evergreen closed	▨ Tree cultivation
▨ Forest evergreen open	▨ Urban area
🟥 Forest plantation	▨ Water body

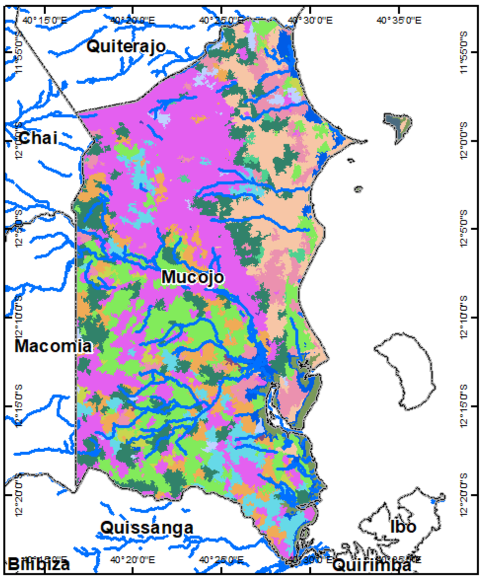
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mucojo	**Macomia**	**Cabo Delgado**

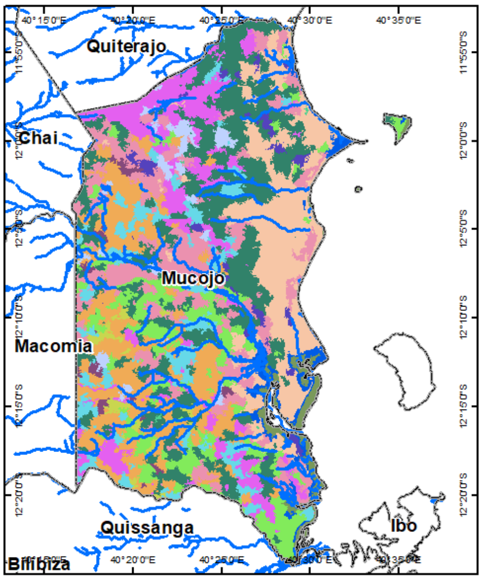

N
0
5
10
20
Kilometers

Total population	17807
Total area (sq km)	1117

Land cover 2016


40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
11°55'0"S
12°0'0"S
12°5'0"S
12°10'0"S
12°15'0"S
12°20'0"S
Quiterajo
Chai
Mucojo
Macomia
Quissanga
Ibo
Bilibiza
Quirimba

Land cover 2021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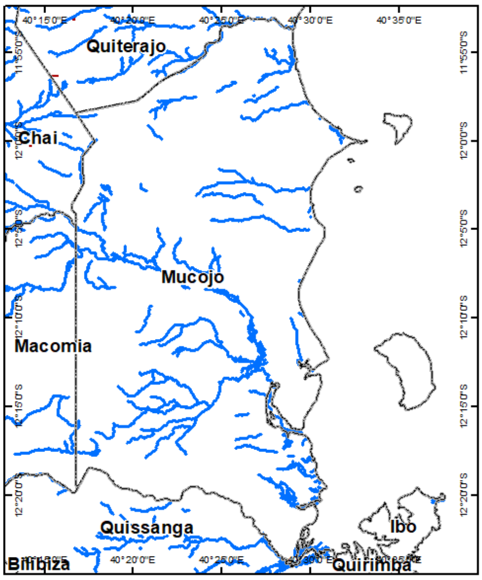
Quiterajo
Chai
Mucojo
Macomia
Quissanga
Ibo
Bilibiza
Quirimba

Drought in 2021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Quiterajo
Chai
Mucojo
Macomia
Quissanga
Ibo
Bilibiza
Quirimba

Forest area in 2016 (sq km)	544
Forest area in 2021 (sq km)	395
Net biomass change in Mg (2016 - 2021)	-2205326
Agricultural area in 2016 (sq km)	7
Agricultural area in 2021 (sq km)	1
Drought (% of agricultural area in 2021)	0

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

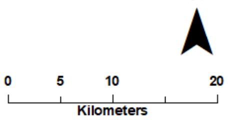
Quiterajo

District

Macomia

Province

Cabo Delgado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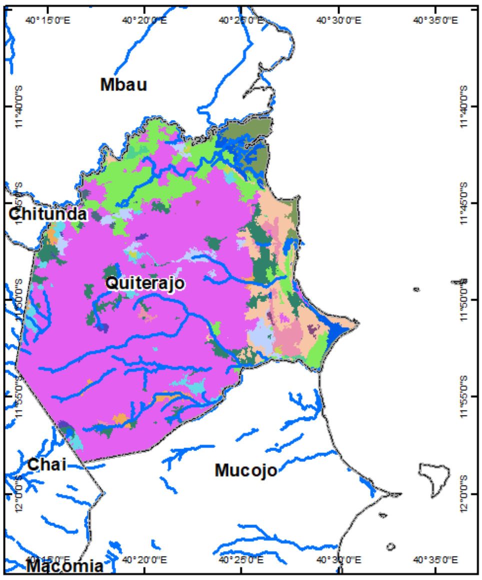
Kilometers

Total population	10626
Total area (sq km)	642

Land cover 2016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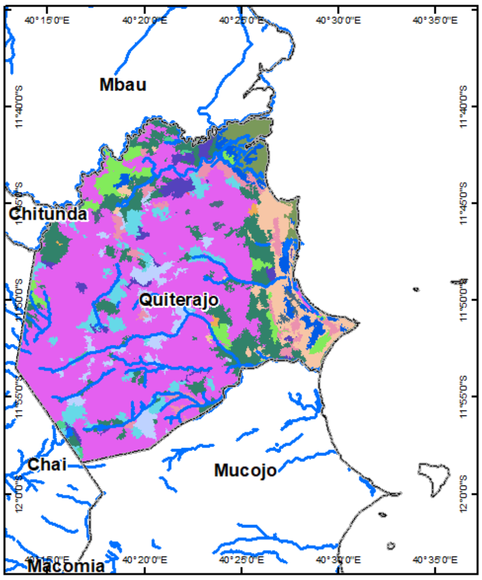
Land cover 2021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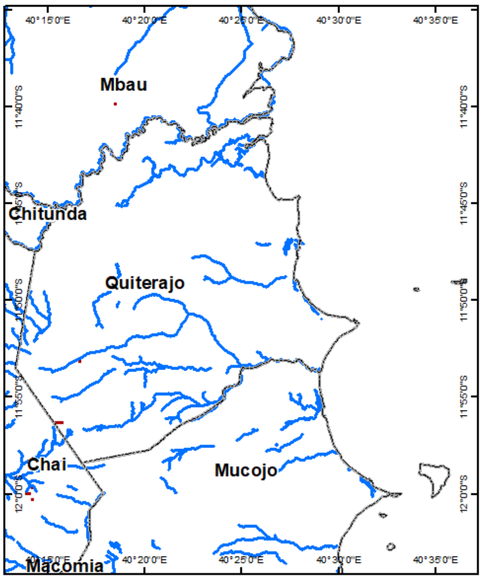
Drought in 2021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Forest area in 2016 (sq km)	464
Forest area in 2021 (sq km)	437
Net biomass change in Mg (2016 - 2021)	-421525
Agricultural area in 2016 (sq km)	2
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	16

Legend

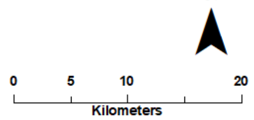
- ⬚ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mecufi	**Mecufi**	**Cabo Delgado**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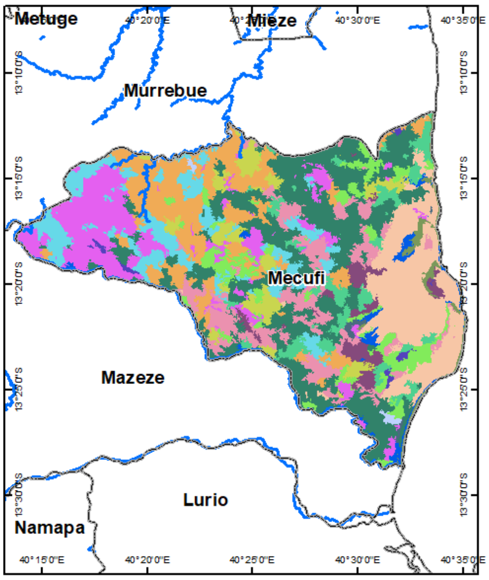
Kilometers

Total population	40905
Total area (sq km)	620

Land cover 2016


Metuge
Mieze
Murrebue
Mecufi
Mazeze
Lurio
Namapa
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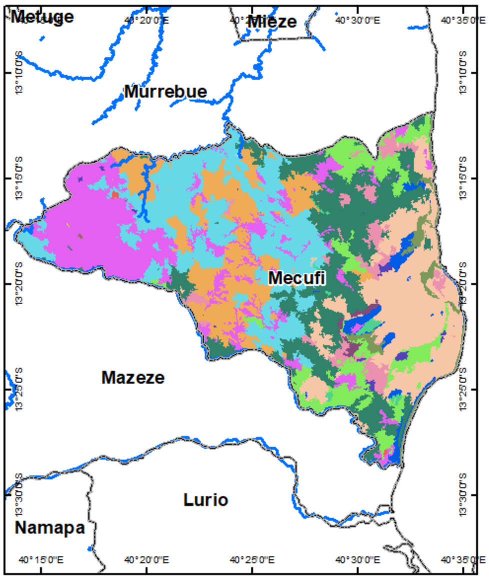
Land cover 2021


Metuge
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Murrebue
Mecufi
Mazeze
Lurio
Namapa
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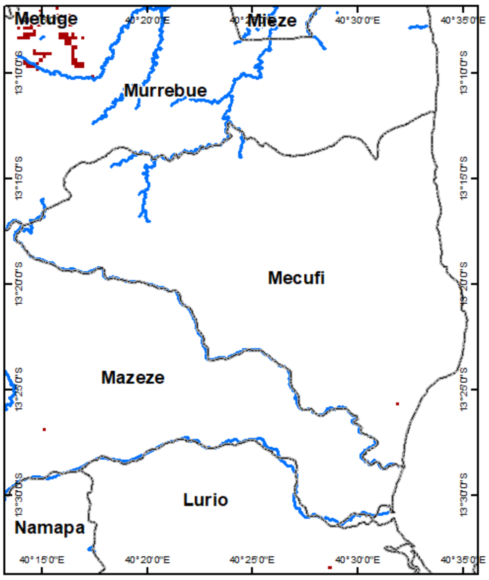
13°25'0"S
13°30'0"S

Drought in 2021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Murrebue
Mecufi
Mazeze
Lurio
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13°30'0"S

Forest area in 2016 (sq km)	217
Forest area in 2021 (sq km)	322
Net biomass change in Mg (2016 - 2021)	1057518
Agricultural area in 2016 (sq km)	30
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	3

Legend

☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	⬛	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	🟥	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
🟦	Forest evergreen open	🟧	Urban area
🟥	Forest plantation	🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Murrebue

District

Mecufi

Province

Cabo Delgado

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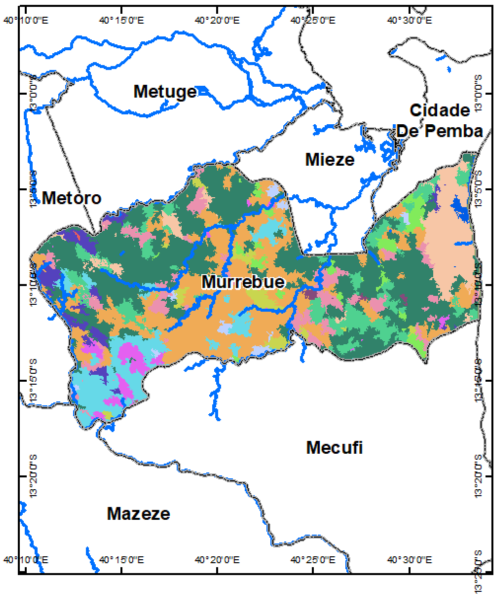
0 5 10 20
Kilometers

Total population	18000
Total area (sq km)	615

Land cover 2016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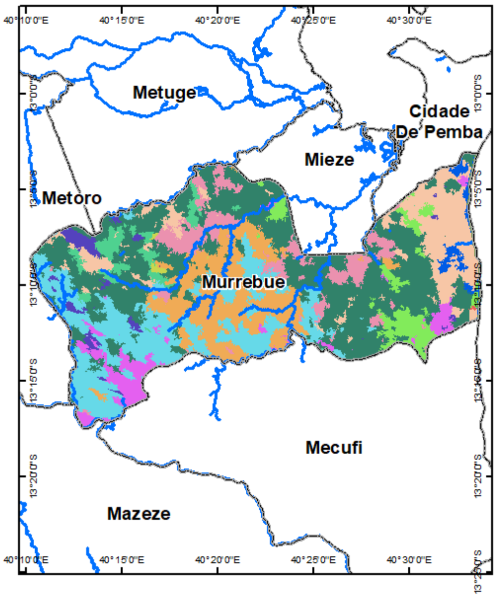
Metuge
Cidade De Pemba
Mieze
Metoro
Murrebue
Mecufi
Mazeze

Land cover 2021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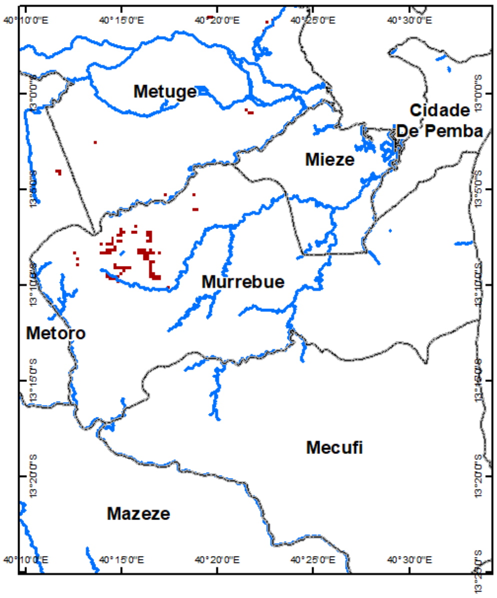
Metuge
Cidade De Pemba
Mieze
Metoro
Murrebue
Mecufi
Mazeze

Drought in 2021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13°20'0"S
Metuge
Cidade De Pemba
Mieze
Murrebue
Metoro
Mecufi
Mazeze

Forest area in 2016 (sq km)	221
Forest area in 2021 (sq km)	230
Net biomass change in Mg (2016 - 2021)	106812
Agricultural area in 2016 (sq km)	49
Agricultural area in 2021 (sq km)	19
Drought (% of agricultural area in 2021)	35

Legend

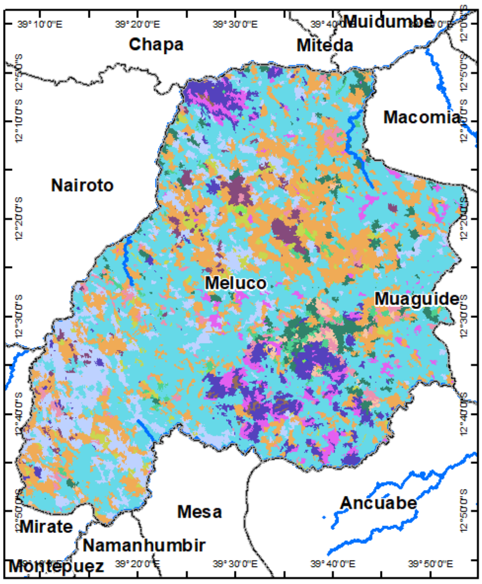
☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	⬛	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	🟥	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
⬜	Forest evergreen open	🟧	Urban area
🟥	Forest plantation	🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

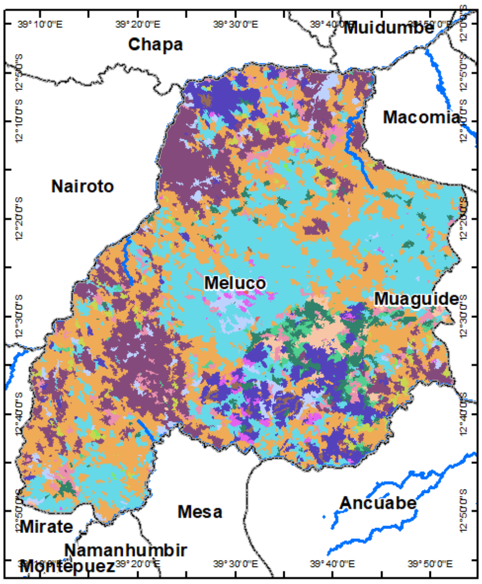
Posto	District	Province
Meluco	**Meluco**	**Cabo Delgado**

Total population	15344
Total area (sq km)	4525

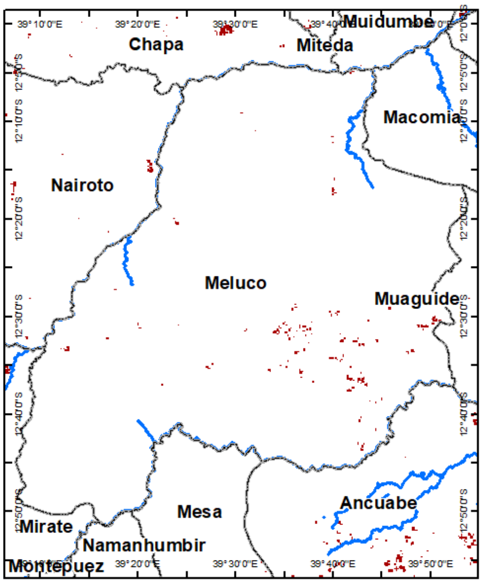
Land cover 2016


Muidumbe
Chapa
Miteda
Macomia
Nairoto
Meluco
Muaguide
Mesa
Ancuabe
Mirate
Namanhumbir
Montepuez

Land cover 2021


Muidumbe
Chapa
Macomia
Nairoto
Meluco
Muaguide
Mesa
Ancuabe
Mirate
Namanhumbir
Montepuez

Drought in 2021


Muidumbe
Chapa
Miteda
Macomia
Nairoto
Meluco
Muaguide
Mesa
Ancuabe
Mirate
Namanhumbir
Montepuez

Forest area in 2016 (sq km)	3731
Forest area in 2021 (sq km)	2952
Net biomass change in Mg (2016 - 2021)	-8855867
Agricultural area in 2016 (sq km)	59
Agricultural area in 2021 (sq km)	70
Drought (% of agricultural area in 2021)	27

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground	🟩 Mangrove
🟩 Flooded herbaceous area	⬛ Mecrusse
🟦 Forest deciduous closed	🟫 Mountain forest
🟧 Forest deciduous open	🟩 Non-tree cultivation
🟪 Forest evergreen closed	🟨 Prairie
🟦 Forest evergreen open	🟥 Prairie tree
🟥 Forest plantation	🟪 Rock without vegetation
	🟩 Tree cultivation
	🟧 Urban area
	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

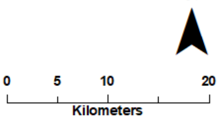
Muaguide

District

Meluco

Province

Cabo Delgado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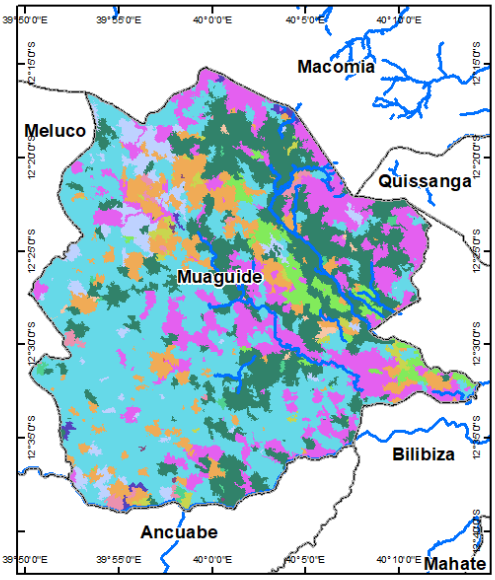
Kilometers

Total population	10513
Total area (sq km)	1204

Land cover 2016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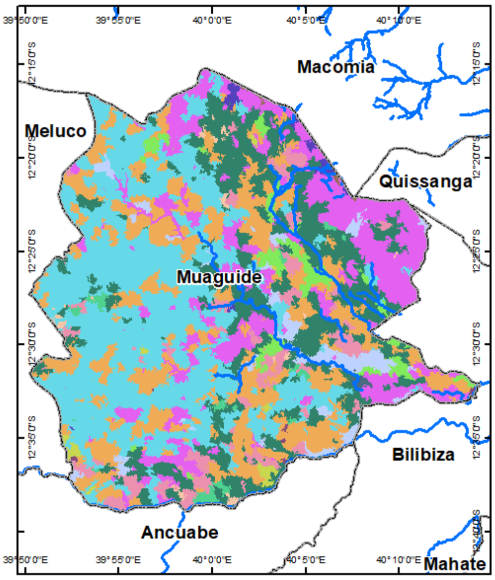
Macomia
Meluco
Quissanga
Muaguide
Bilibiza
Ancuabe
Mahate

Land cover 2021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Macomia
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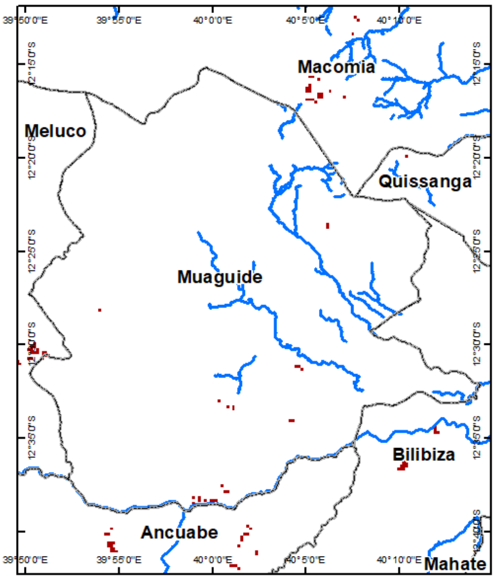
Bilibiza
Ancuabe
Mahate

Drought in 2021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Bilibiza
Ancuabe
Mahate

Forest area in 2016 (sq km)	848
Forest area in 2021 (sq km)	854
Net biomass change in Mg (2016 - 2021)	-89684
Agricultural area in 2016 (sq km)	5
Agricultural area in 2021 (sq km)	11
Drought (% of agricultural area in 2021)	17

Legend

- ☐ Admin boundary (level 3)
- — Waterways

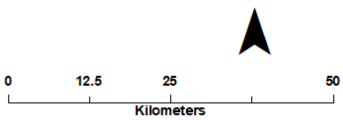
Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

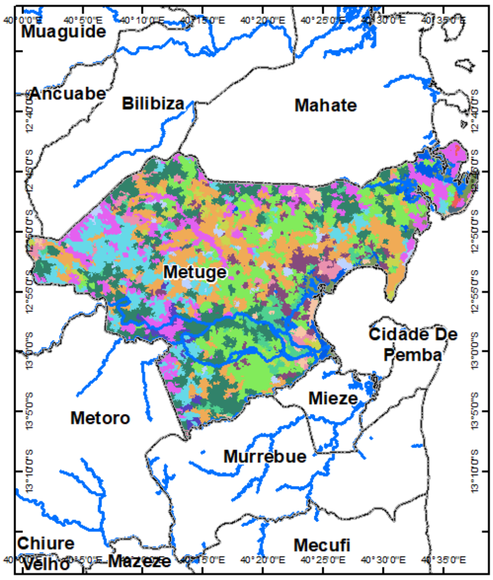
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Metuge	**Metuge**	**Cabo Delgado**

Total population	42981
Total area (sq km)	1460


N
0
12.5
25
50
Kilometers

Land cover 2016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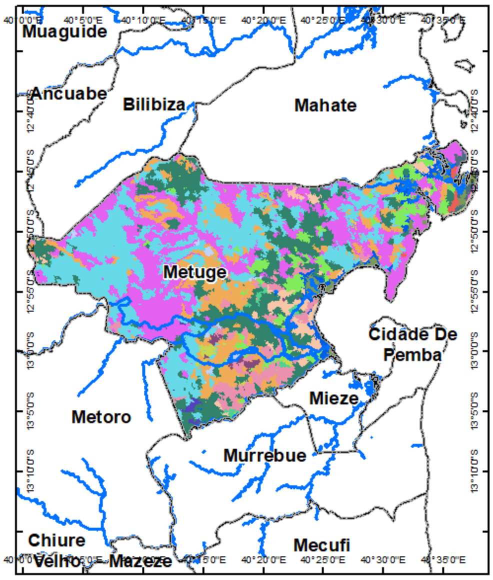
Muaguide
Ancuabe
Bilibiza
Mahate
Metuge
Cidade De Pemba
Mieze
Metoro
Murrebue
Chiure Velho
Mazeze
Mecufi

Land cover 2021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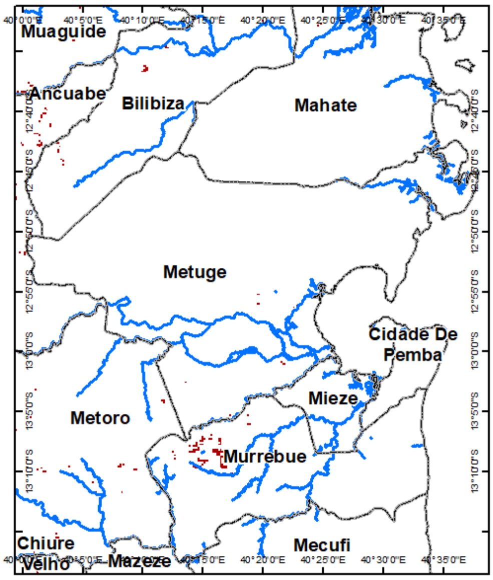
Muaguide
Ancuabe
Bilibiza
Mahate
Metuge
Cidade De Pemba
Mieze
Metoro
Murrebue
Chiure Velho
Mazeze
Mecufi

Drought in 2021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Muaguide
Ancuabe
Bilibiza
Mahate
Metuge
Cidade De Pemba
Mieze
Metoro
Murrebue
Chiure Velho
Mazeze
Mecufi

Forest area in 2016 (sq km)	675
Forest area in 2021 (sq km)	960
Net biomass change in Mg (2016 - 2021)	3081220
Agricultural area in 2016 (sq km)	54
Agricultural area in 2021 (sq km)	8
Drought (% of agricultural area in 2021)	14

Legend

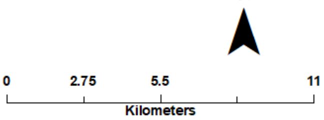
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

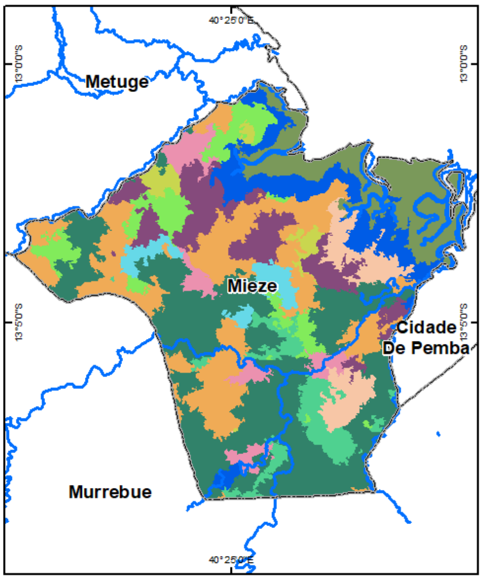
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mieze	**Metuge**	**Cabo Delgado**


N
0
2.75
5.5
11
Kilometers

Total population	64820
Total area (sq km)	128

Land cover 2016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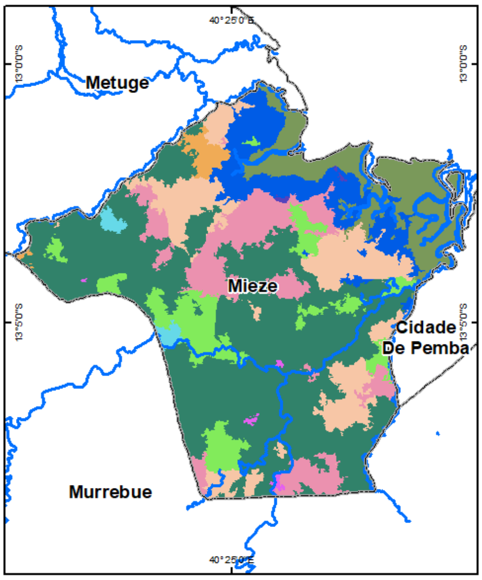
13°5'0"S
Metuge
Mieze
Cidade De Pemba
Murrebue

Land cover 2021


40°25'0"E
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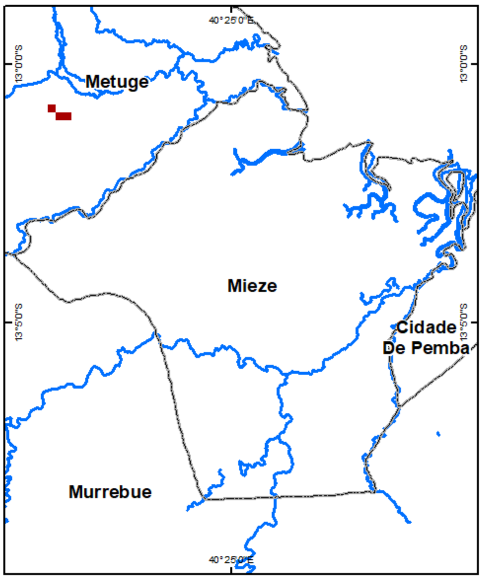
Metuge
Mieze
Cidade De Pemba
Murrebue

Drought in 2021


40°25'0"E
13°0'0"S
13°5'0"S
Metuge
Mieze
Cidade De Pemba
Murrebue

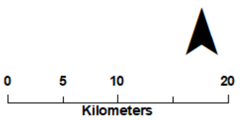
Forest area in 2016 (sq km)	42
Forest area in 2021 (sq km)	18
Net biomass change in Mg (2016 - 2021)	-203220
Agricultural area in 2016 (sq km)	6
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
⬜ Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

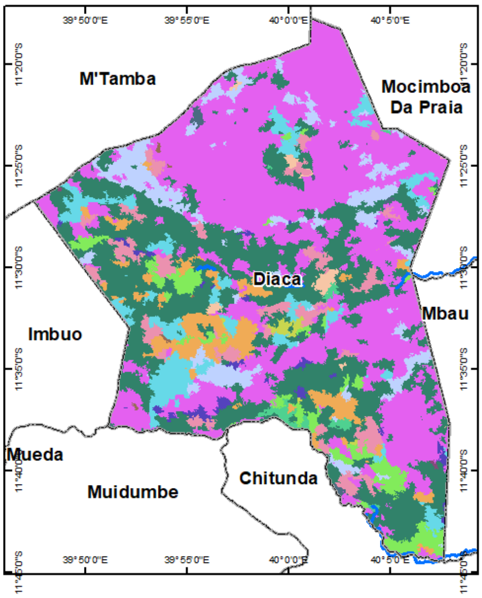
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Diaca	**Mocimboa Da Praia**	**Cabo Delgado**


N
0
5
10
20
Kilometers

Total population	19804
Total area (sq km)	1020

Land cover 2016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11°40'0"S
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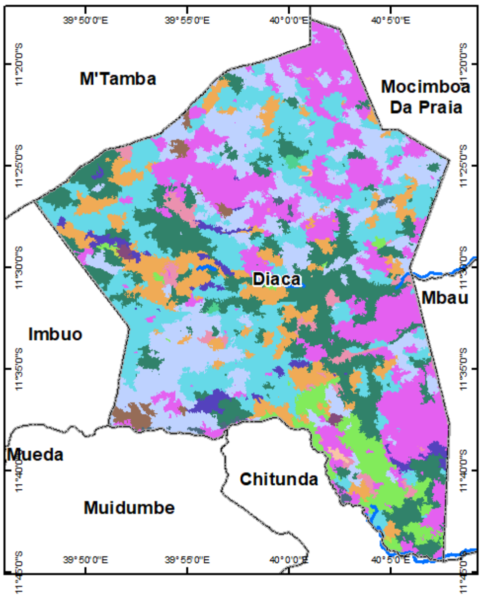
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Imbuo
Mueda
Muidumbe
Chitunda

Land cover 2021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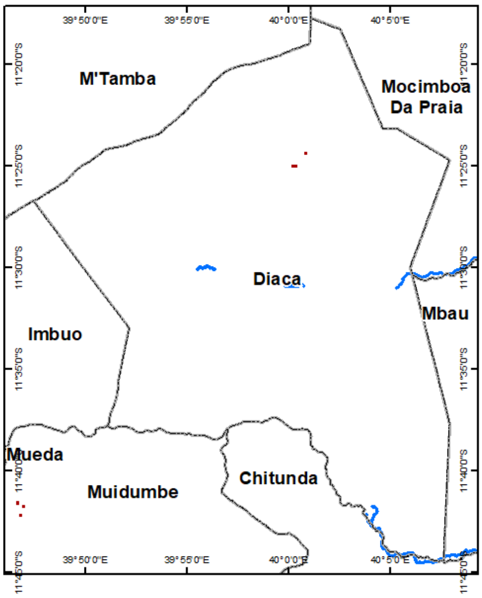
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Imbuo
Mueda
Muidumbe
Chitunda

Drought in 2021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11°35'0"S
11°40'0"S
11°45'0"S
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Imbuo
Mueda
Muidumbe
Chitunda

Forest area in 2016 (sq km)	611
Forest area in 2021 (sq km)	745
Net biomass change in Mg (2016 - 2021)	800803
Agricultural area in 2016 (sq km)	8
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	11

Legend

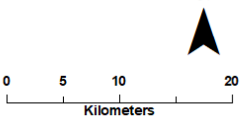
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

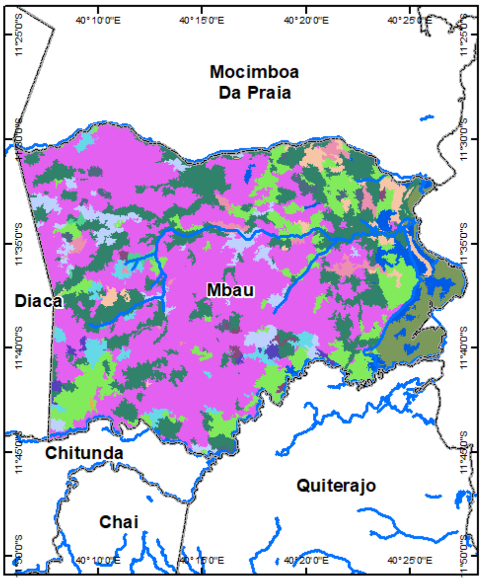
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mbau	**Mocimboa Da Praia**	**Cabo Delgado**


N
0
5
10
20
Kilometers

Total population	11317
Total area (sq km)	785

Land cover 2016


Mocimboa Da Praia
Mbau
Diaca
Chitunda
Chai
Quiterajo
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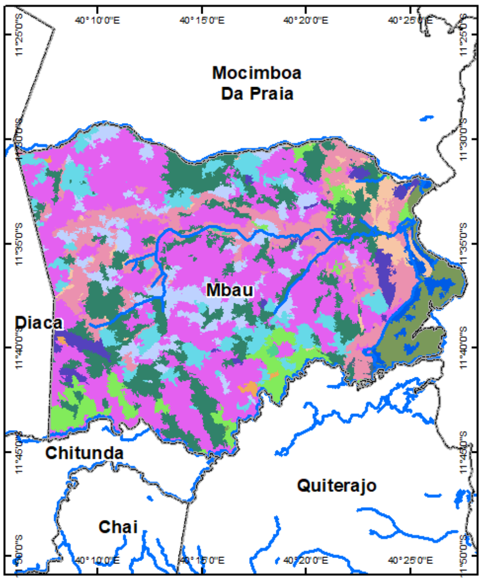
40°15'0"E
40°20'0"E
40°25'0"E
11°25'0"S
11°30'0"S
11°35'0"S
11°40'0"S
11°45'0"S
11°50'0"S

Land cover 2021


Mocimboa Da Praia
Mbau
Diaca
Chitunda
Chai
Quiterajo
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
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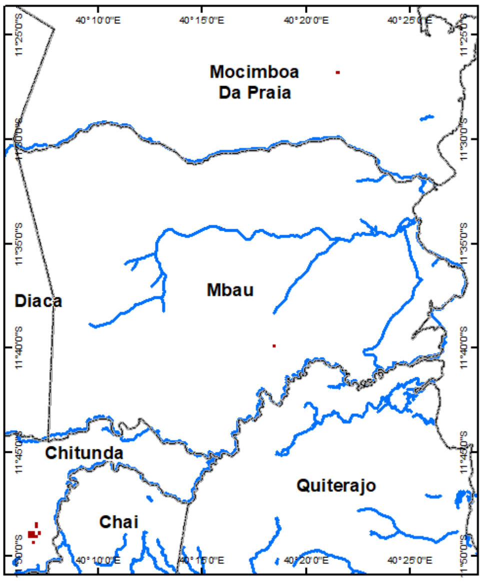
11°30'0"S
11°35'0"S
11°40'0"S
11°45'0"S
11°50'0"S

Drought in 2021


Mocimboa Da Praia
Mbau
Diaca
Chitunda
Chai
Quiterajo
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
11°25'0"S
11°30'0"S
11°35'0"S
11°40'0"S
11°45'0"S
11°50'0"S

Forest area in 2016 (sq km)	459
Forest area in 2021 (sq km)	448
Net biomass change in Mg (2016 - 2021)	-311948

Agricultural area in 2016 (sq km)	3
Agricultural area in 2021 (sq km)	1
Drought (% of agricultural area in 2021)	12

Legend

☐	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Mocimboa Da Praia

District

Mocimboa Da Praia

Province

Cabo Delgado

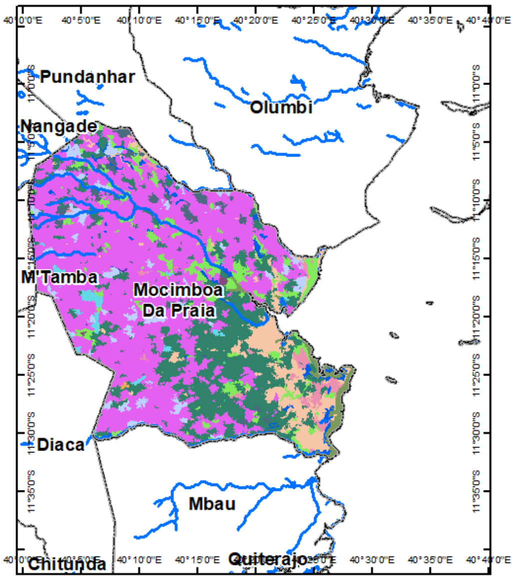
Total population	85987
Total area (sq km)	1668

N

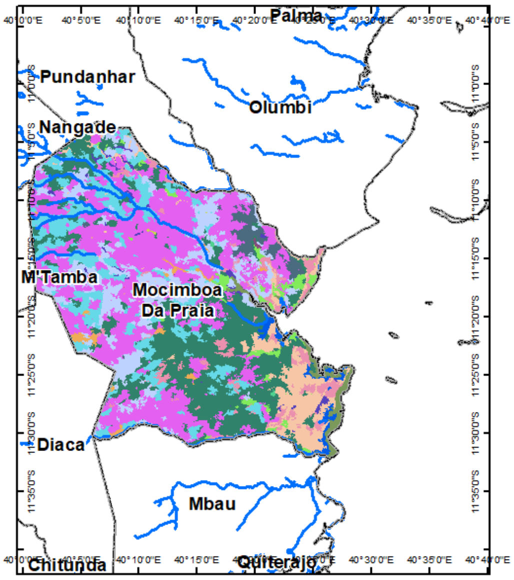
0 12.5 25 50

Kilometers

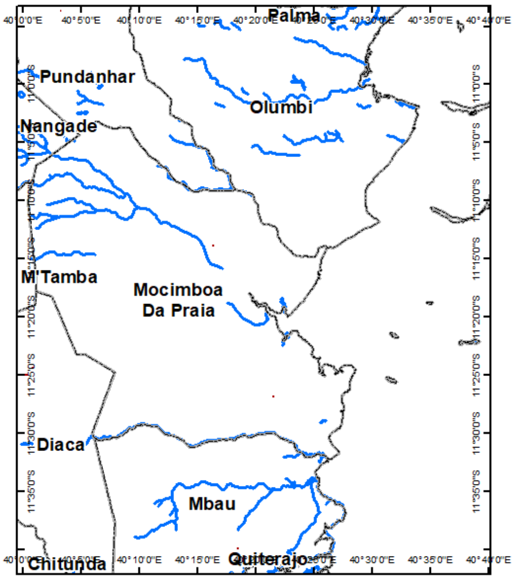
Land cover 2016


Pundanhar
Nangade
Olumbi
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Chitunda
Quiterajo

Land cover 2021


Palma
Pundanhar
Nangade
Olumbi
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Chitunda
Quiterajo

Drought in 2021


Palma
Pundanhar
Nangade
Olumbi
M'Tamba
Mocimboa Da Praia
Diaca
Mbau
Chitunda
Quiterajo

Forest area in 2016 (sq km)	1028
Forest area in 2021 (sq km)	1050
Net biomass change in Mg (2016 - 2021)	-612930

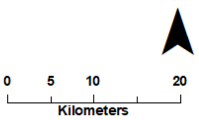
Agricultural area in 2016 (sq km)	2
Agricultural area in 2021 (sq km)	1
Drought (% of agricultural area in 2021)	11

Legend

☐ Admin boundary (level 3)	🟩 Mangrove
― Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

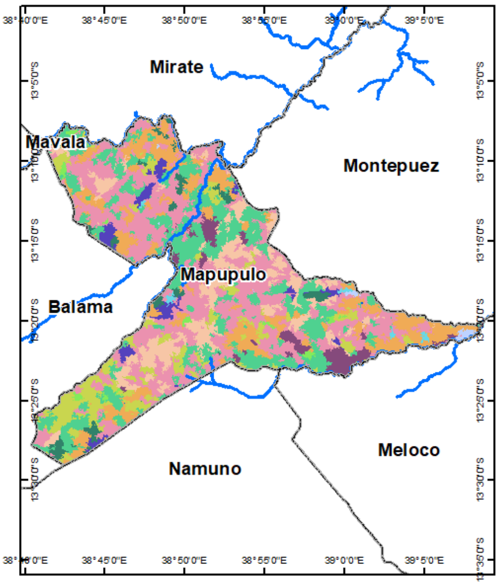
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mapupulo	**Montepuez**	**Cabo Delgado**


N
0
5
10
20
Kilometers

Total population	35551
Total area (sq km)	743

Land cover 2016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38°50'0"E
38°55'0"E
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13°5'0"S
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13°25'0"S
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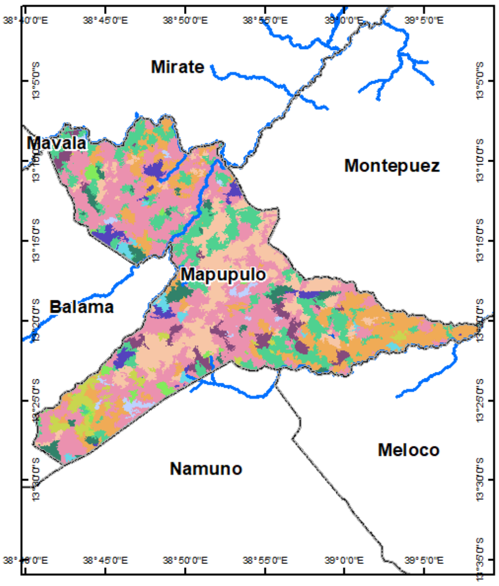
13°35'0"S
Mirate
Mavala
Montepuez
Mapupulo
Balama
Meloco
Namuno

Land cover 2021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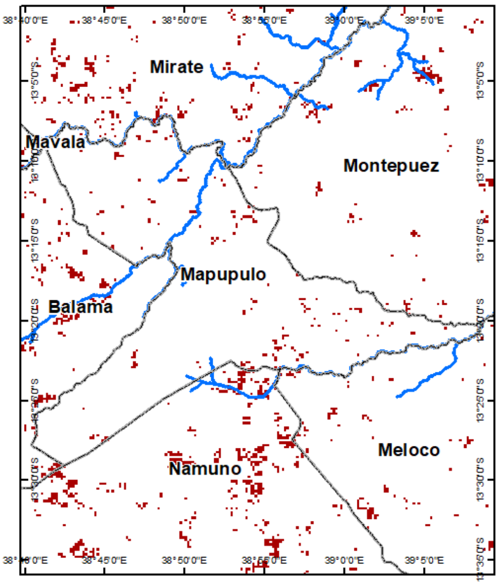
Mirate
Mavala
Montepuez
Mapupulo
Balama
Meloco
Namuno

Drought in 2021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13°15'0"S
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13°25'0"S
13°30'0"S
13°35'0"S
Mirate
Mavala
Montepuez
Mapupulo
Balama
Meloco
Namuno

Forest area in 2016 (sq km)	119
Forest area in 2021 (sq km)	145
Net biomass change in Mg (2016 - 2021)	253500
Agricultural area in 2016 (sq km)	156
Agricultural area in 2021 (sq km)	115
Drought (% of agricultural area in 2021)	12

Legend

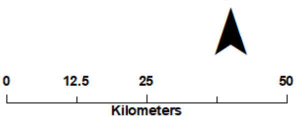
- ▭ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

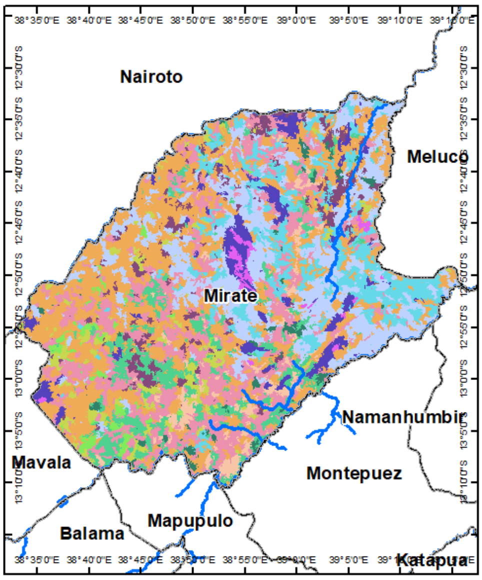
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mirate	**Montepuez**	**Cabo Delgado**


N
0
12.5
25
50
Kilometers

Total population	44104
Total area (sq km)	3118

Land cover 2016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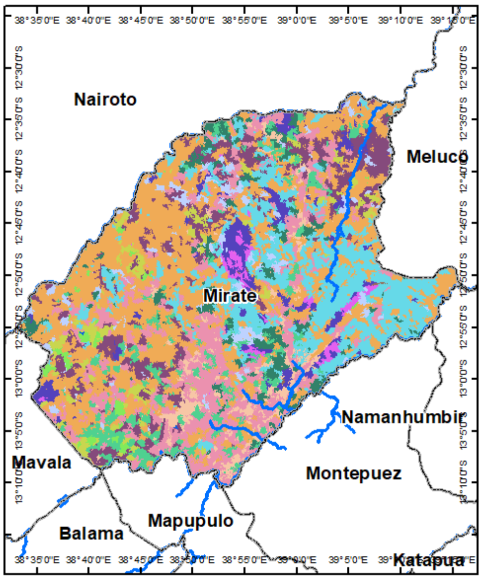
12°30'0"S 12°35'0"S 12°40'0"S 12°45'0"S 12°50'0"S 12°55'0"S 13°0'0"S 13°5'0"S 13°10'0"S
Nairoto
Meluco
Mirate
Namanhumbir
Mavala
Montepuez
Balama
Mapupulo
Katapua

Land cover 2021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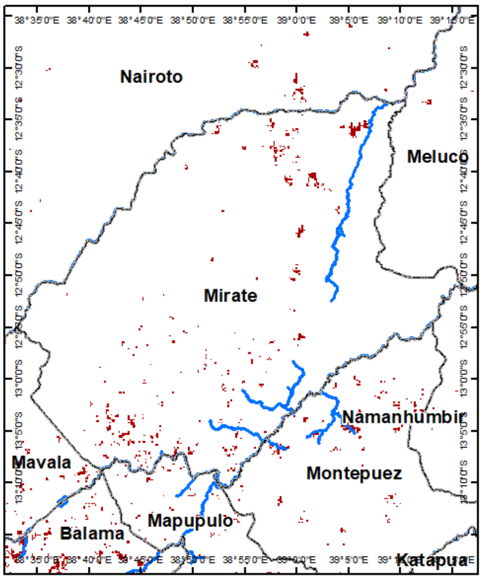
Nairoto
Meluco
Mirate
Namanhumbir
Mavala
Montepuez
Balama
Mapupulo
Katapua

Drought in 2021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12°30'0"S 12°35'0"S 12°40'0"S 12°45'0"S 12°50'0"S 12°55'0"S 13°0'0"S 13°5'0"S 13°10'0"S
Nairoto
Meluco
Mirate
Namanhumbir
Mavala
Montepuez
Balama
Mapupulo
Katapua

Forest area in 2016 (sq km)	1758
Forest area in 2021 (sq km)	1645
Net biomass change in Mg (2016 - 2021)	-2805976

Agricultural area in 2016 (sq km)	239
Agricultural area in 2021 (sq km)	186
Drought (% of agricultural area in 2021)	23

Legend

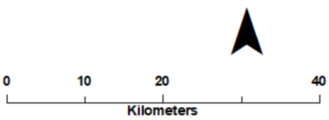
▭ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

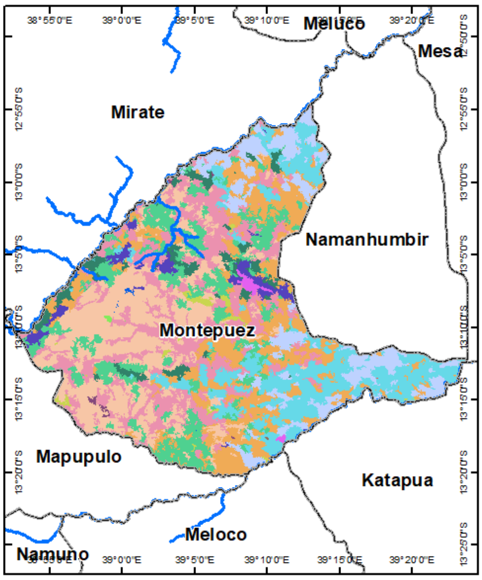
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Montepuez	**Montepuez**	**Cabo Delgado**


N
0
10
20
40
Kilometers

Total population	**142963**
Total area (sq km)	**1211**

Land cover 2016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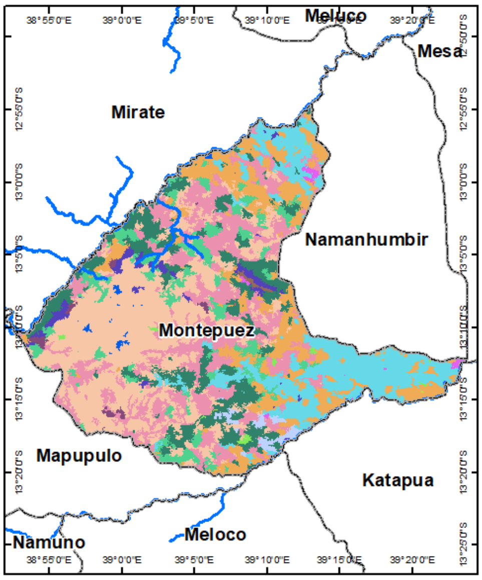
13°20'0"S
13°25'0"S
Meluco
Mesa
Mirate
Namanhumbir
Montepuez
Mapupulo
Katapua
Meloco
Namuno

Land cover 2021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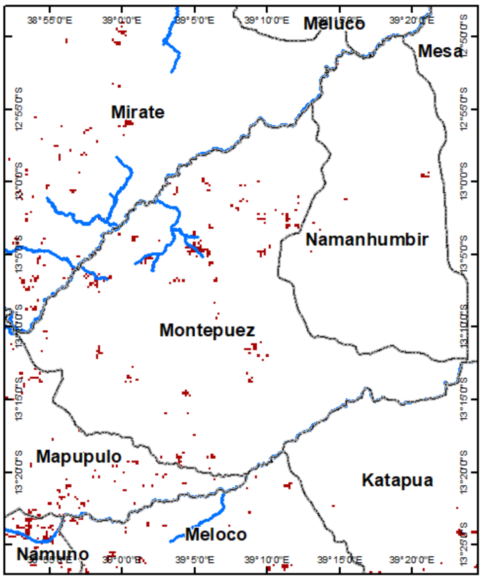
13°25'0"S
Meluco
Mesa
Mirate
Namanhumbir
Montepuez
Mapupulo
Katapua
Meloco
Namuno

Drought in 2021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13°15'0"S
13°20'0"S
13°25'0"S
Meluco
Mesa
Mirate
Namanhumbir
Montepuez
Mapupulo
Katapua
Meloco
Namuno

Forest area in 2016 (sq km)	502
Forest area in 2021 (sq km)	371
Net biomass change in Mg (2016 - 2021)	-1582012
Agricultural area in 2016 (sq km)	156
Agricultural area in 2021 (sq km)	89
Drought (% of agricultural area in 2021)	20

Legend

- ☐ Admin boundary (level 3)
- — Waterways

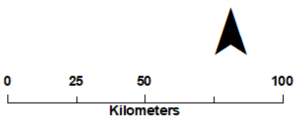
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

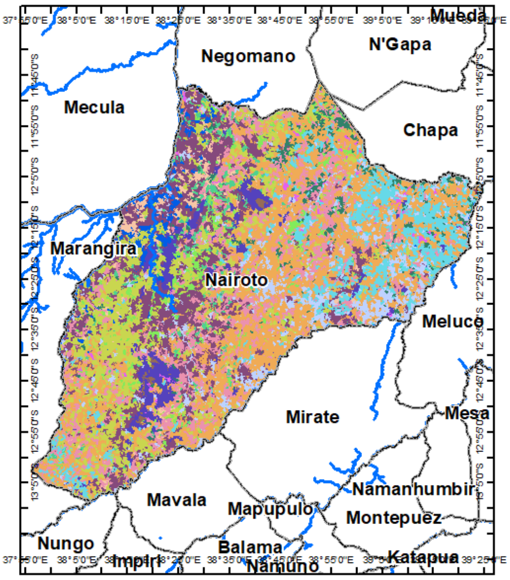
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nairoto	**Montepuez**	**Cabo Delgado**

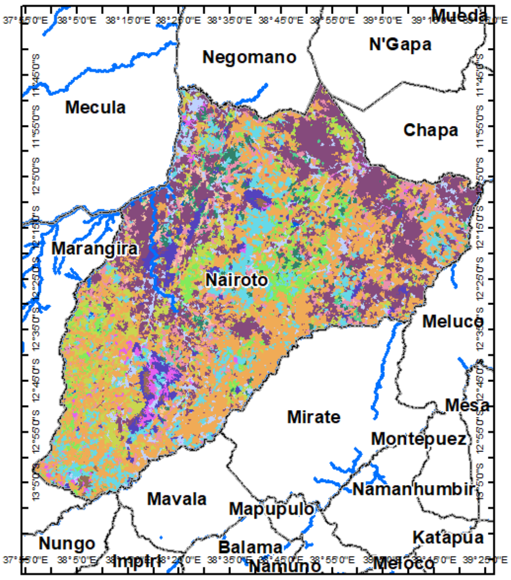
Total population	15873
Total area (sq km)	12080


N
0
25
50
100
Kilometers

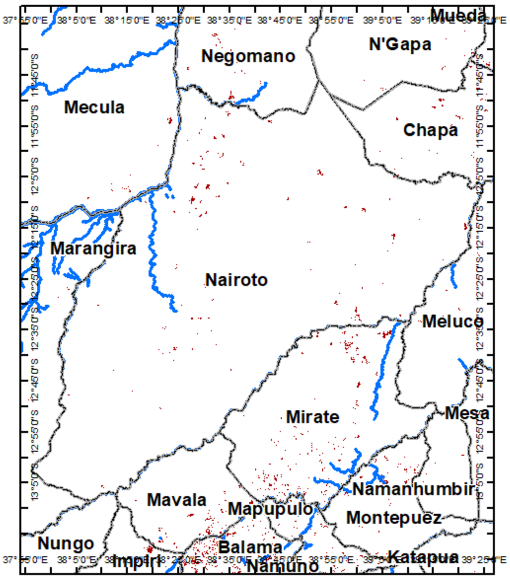
Land cover 2016


Mueda
Negomano
N'Gapa
Mecula
Chapa
Marangira
Nairoto
Meluco
Mirate
Mesa
Mavala
Mapupulo
Namanhumbir
Montepuez
Nungo
Balama
Impiri
Namuno
Katapua

Land cover 2021


Mueda
Negomano
N'Gapa
Mecula
Chapa
Marangira
Nairoto
Meluco
Mirate
Mesa
Montepuez
Mavala
Mapupulo
Namanhumbir
Katapua
Nungo
Balama
Impiri
Namuno
Meloco

Drought in 2021


Mueda
Negomano
N'Gapa
Mecula
Chapa
Marangira
Nairoto
Meluco
Mirate
Mesa
Mavala
Mapupulo
Namanhumbir
Montepuez
Nungo
Balama
Impiri
Namuno
Katapua

Forest area in 2016 (sq km)	5127
Forest area in 2021 (sq km)	6011
Net biomass change in Mg (2016 - 2021)	7832234

Agricultural area in 2016 (sq km)	286
Agricultural area in 2021 (sq km)	128
Drought (% of agricultural area in 2021)	28

Legend

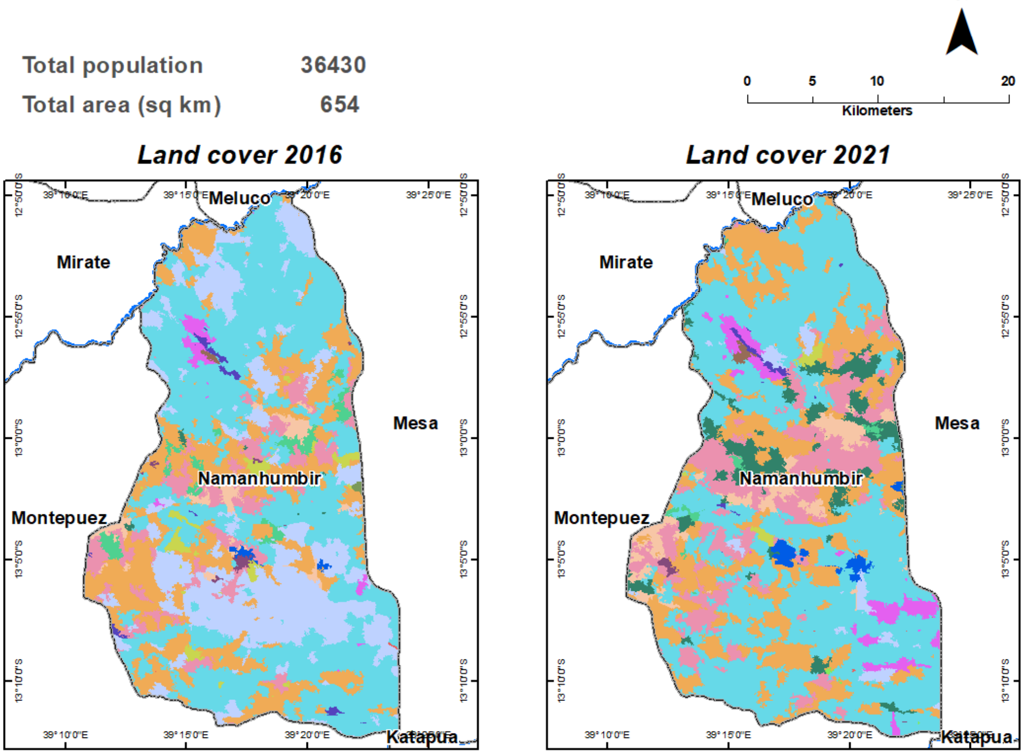
☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	■	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	■	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
■	Forest evergreen open	■	Urban area
🟥	Forest plantation	🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namanhumbir	**Montepuez**	**Cabo Delgado**

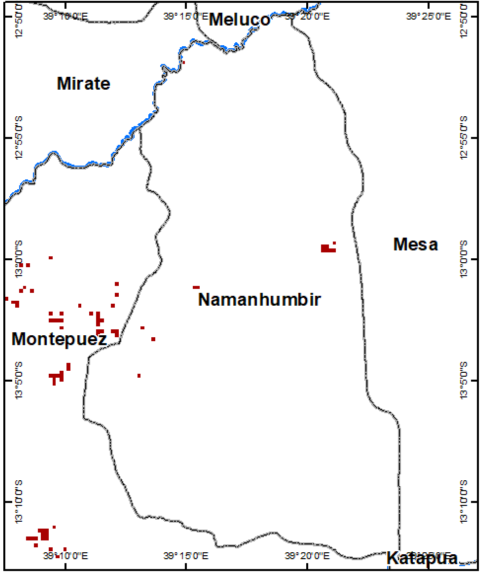
Total population	36430
Total area (sq km)	654

Land cover 2016


N
0
5
10
20
Kilometers
Meluco
Mirate
Mesa
Namanhumbir
Montepuez
Katapua
39°10'0"E
39°15'0"E
39°20'0"E
39°25'0"E
12°50'0"S
12°55'0"S
13°0'0"S
13°5'0"S
13°10'0"S

Land cover 2021

Drought in 2021


Meluco
Mirate
Mesa
Namanhumbir
Montepuez
Katapua
39°10'0"E
39°15'0"E
39°20'0"E
39°25'0"E
12°50'0"S
12°55'0"S
13°0'0"S
13°5'0"S
13°10'0"S

Forest area in 2016 (sq km)	567
Forest area in 2021 (sq km)	488
Net biomass change in Mg (2016 - 2021)	-1160938
Agricultural area in 2016 (sq km)	12
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	33

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

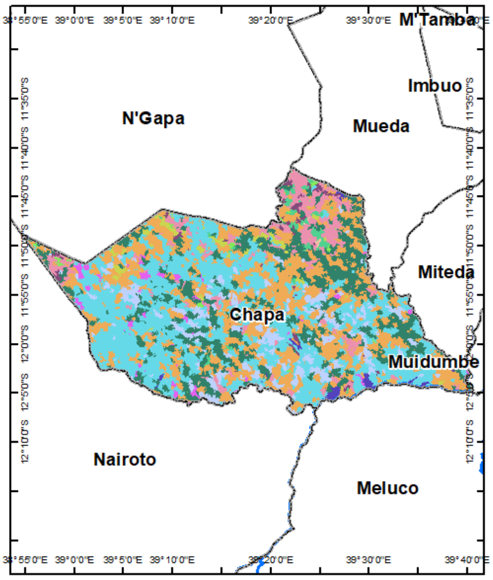
🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

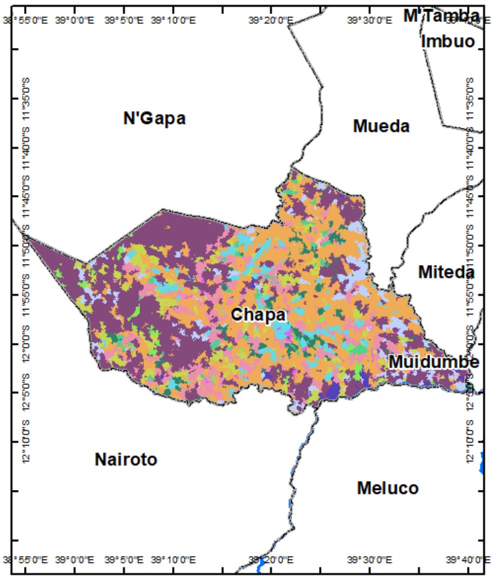
Posto	District	Province
Chapa	**Mueda**	**Cabo Delgado**

Total population	36789
Total area (sq km)	2033

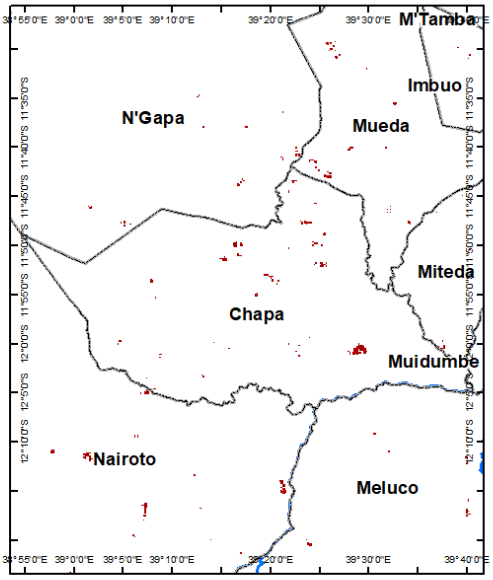
Land cover 2016


M'Tamba
Imbuo
N'Gapa
Mueda
Miteda
Chapa
Muidumbe
Nairoto
Meluco
N
0 15 30 60
Kilometers

Land cover 2021


M'Tamba
Imbuo
N'Gapa
Mueda
Miteda
Chapa
Muidumbe
Nairoto
Meluco

Drought in 2021


M'Tamba
Imbuo
N'Gapa
Mueda
Miteda
Chapa
Muidumbe
Nairoto
Meluco

Forest area in 2016 (sq km)	1413
Forest area in 2021 (sq km)	858
Net biomass change in Mg (2016 - 2021)	-5061704
Agricultural area in 2016 (sq km)	23
Agricultural area in 2021 (sq km)	36
Drought (% of agricultural area in 2021)	33

Legend

- Admin boundary (level 3)
- Waterways

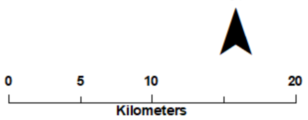
Land cover

- Bare ground
- Flooded herbaceous area
- Forest deciduous closed
- Forest deciduous open
- Forest evergreen closed
- Forest evergreen open
- Forest plantation
- Mangrove
- Mecrusse
- Mountain forest
- Non-tree cultivation
- Prairie
- Prairie tree
- Rock without vegetation
- Tree cultivation
- Urban area
- Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Imbuo	**Mueda**	**Cabo Delgado**

Total population	15390
Total area (sq km)	530


N
0
5
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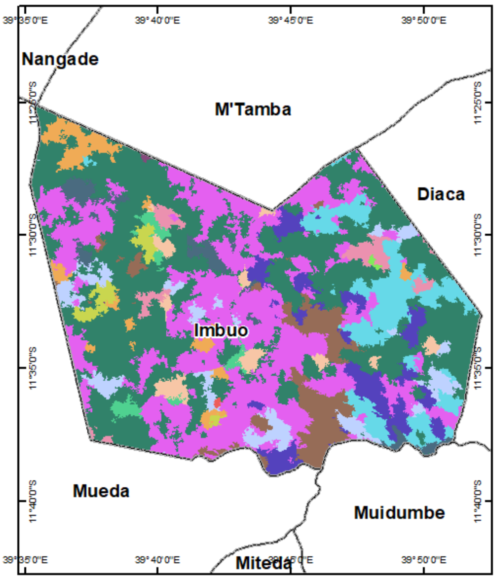
20
Kilometers

Land cover 2016


Nangade
M'Tamba
Diaca
Imbuo
Mueda
Muidumbe
Miteda
39°35'0"E
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11°30'0"S
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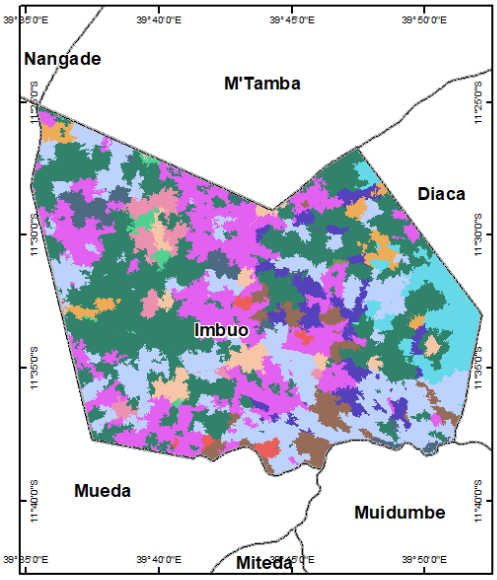
Land cover 2021


Nangade
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Imbuo
Mueda
Muidumbe
Miteda
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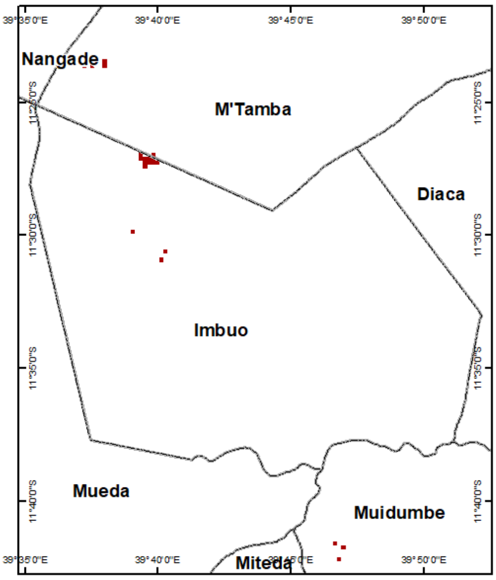
11°30'0"S
11°35'0"S
11°40'0"S

Drought in 2021


Nangade
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Muidumbe
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39°50'0"E
11°25'0"S
11°30'0"S
11°35'0"S
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Forest area in 2016 (sq km)	266
Forest area in 2021 (sq km)	302
Net biomass change in Mg (2016 - 2021)	512221
Agricultural area in 2016 (sq km)	6
Agricultural area in 2021 (sq km)	4
Drought (% of agricultural area in 2021)	24

Legend

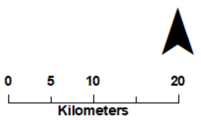
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mueda	**Mueda**	**Cabo Delgado**


N
0
5
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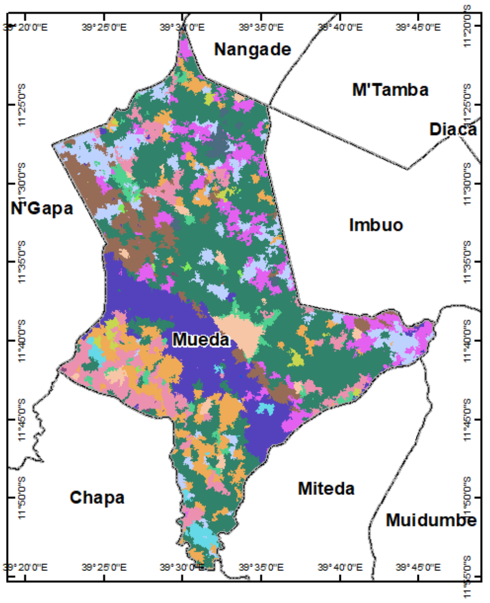
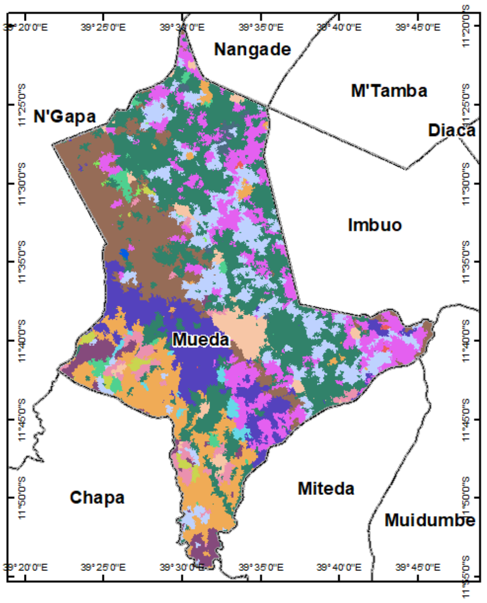
20
Kilometers

Total population	58331
Total area (sq km)	1148

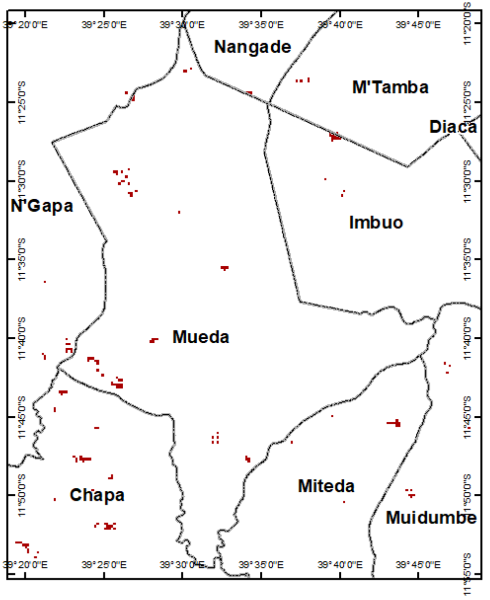
Land cover 2016


Nangade
M'Tamba
Diaca
N'Gapa
Imbuo
Mueda
Chapa
Miteda
Muidumbe

Land cover 2021


Nangade
M'Tamba
N'Gapa
Diaca
Imbuo
Mueda
Chapa
Miteda
Muidumbe

Drought in 2021


Nangade
M'Tamba
Diaca
N'Gapa
Imbuo
Mueda
Chapa
Miteda
Muidumbe

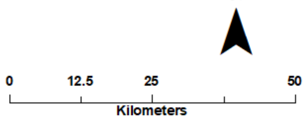
Forest area in 2016 (sq km)	393
Forest area in 2021 (sq km)	579
Net biomass change in Mg (2016 - 2021)	2350533
Agricultural area in 2016 (sq km)	27
Agricultural area in 2021 (sq km)	17
Drought (% of agricultural area in 2021)	29

Legend

☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

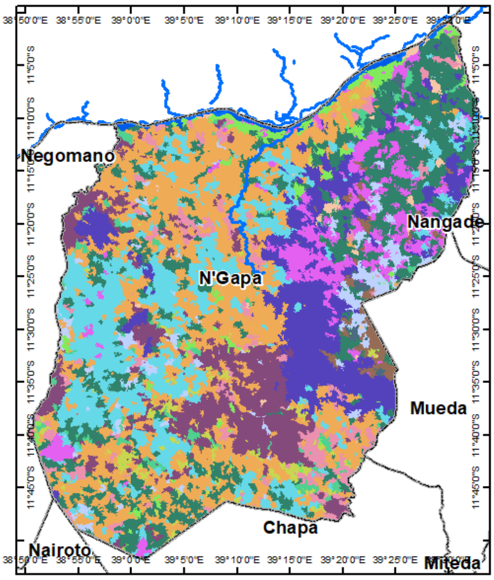
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
N'Gapa	**Mueda**	**Cabo Delgado**

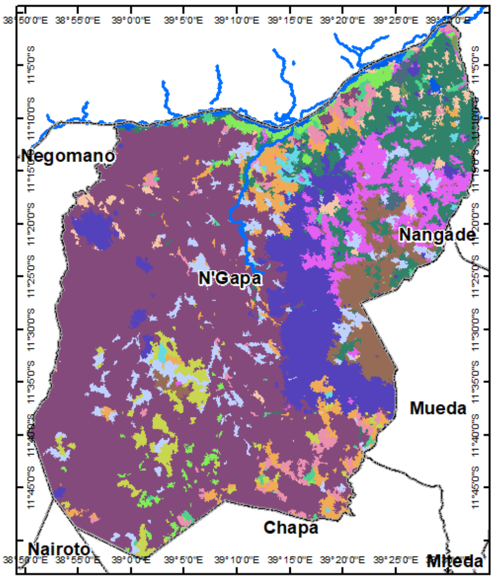

N
0
12.5
25
50
Kilometers

Total population	36945
Total area (sq km)	4493

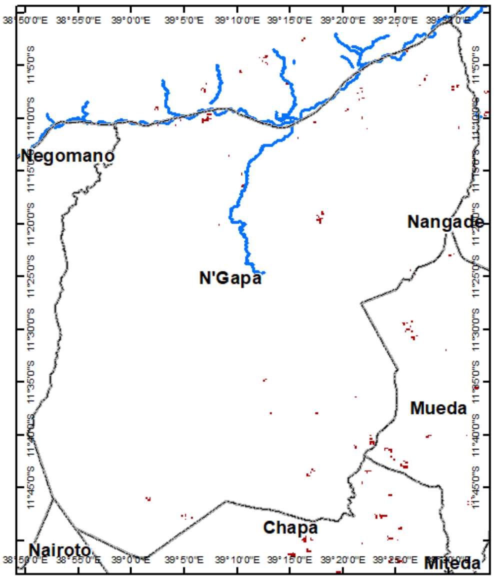
Land cover 2016


Negomano
Nangade
N'Gapa
Mueda
Chapa
Nairoto
Miteda

Land cover 2021


Negomano
Nangade
N'Gapa
Mueda
Chapa
Nairoto
Miteda

Drought in 2021


Negomano
Nangade
N'Gapa
Mueda
Chapa
Nairoto
Miteda

Forest area in 2016 (sq km)	2280
Forest area in 2021 (sq km)	896
Net biomass change in Mg (2016 - 2021)	-11253966

Agricultural area in 2016 (sq km)	78
Agricultural area in 2021 (sq km)	38
Drought (% of agricultural area in 2021)	21

Legend

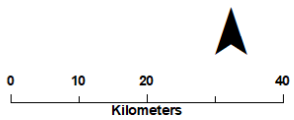
- ☐ Admin boundary (level 3)
- ― Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

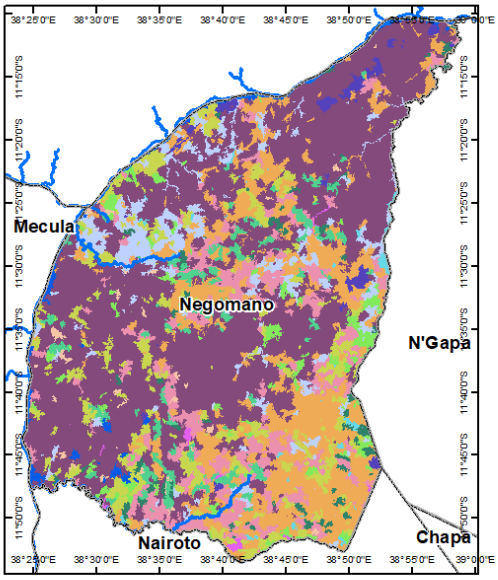
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Negomano	**Mueda**	**Cabo Delgado**


N
0
10
20
40
Kilometers

Total population	3352
Total area (sq km)	3023

Land cover 2016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11°15'0"S
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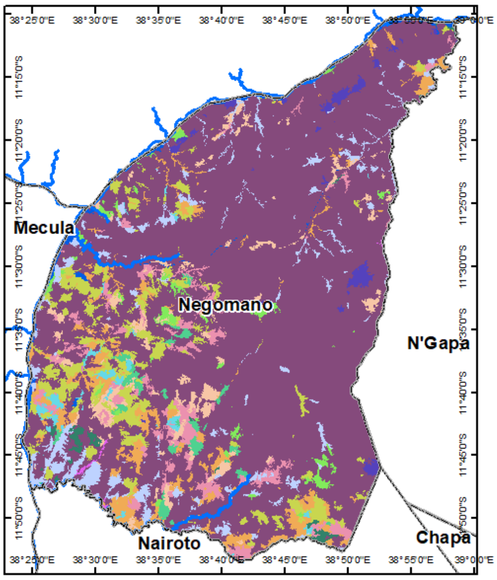
Mecula
Negomano
N'Gapa
Nairoto
Chapa

Land cover 2021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11°40'0"S
11°45'0"S
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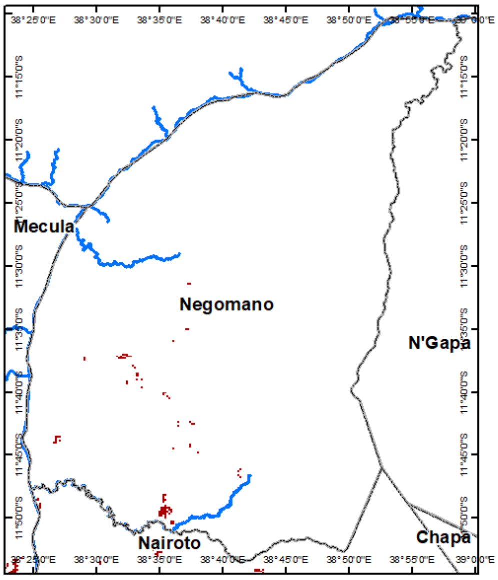
Mecula
Negomano
N'Gapa
Nairoto
Chapa

Drought in 2021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11°35'0"S
11°40'0"S
11°45'0"S
11°50'0"S
Mecula
Negomano
N'Gapa
Nairoto
Chapa

Forest area in 2016 (sq km)	732
Forest area in 2021 (sq km)	297
Net biomass change in Mg (2016 - 2021)	-4056738
Agricultural area in 2016 (sq km)	105
Agricultural area in 2021 (sq km)	32
Drought (% of agricultural area in 2021)	23

Legend

⬚ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

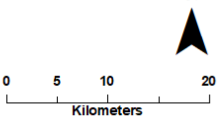
Chitunda

District

Muidumbe

Province

Cabo Delgado


N
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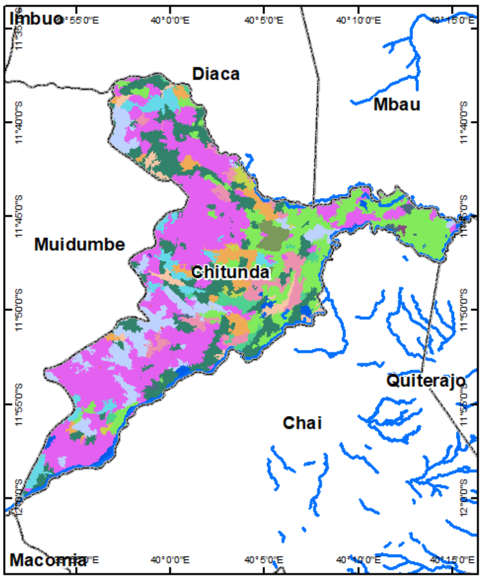
Kilometers

Total population	**32789**
Total area (sq km)	**526**

Land cover 2016


Imbuo
Diaca
Mbau
Muidumbe
Chitunda
Quiterajo
Chai
Macomia
39°55'0"E
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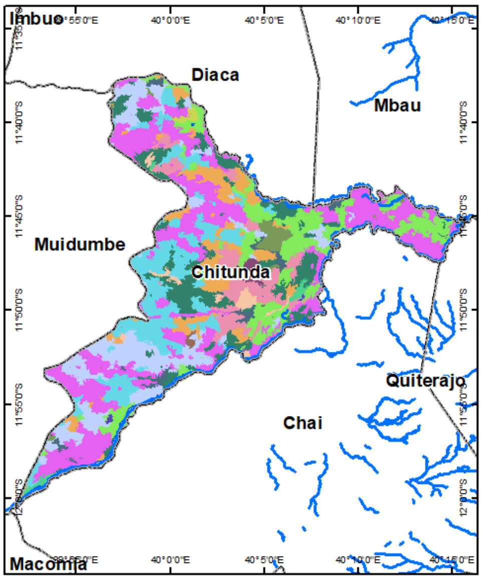
40°5'0"E
40°10'0"E
40°15'0"E
11°35'0"S
11°40'0"S
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S

Land cover 2021


Imbuo
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Muidumbe
Chitunda
Quiterajo
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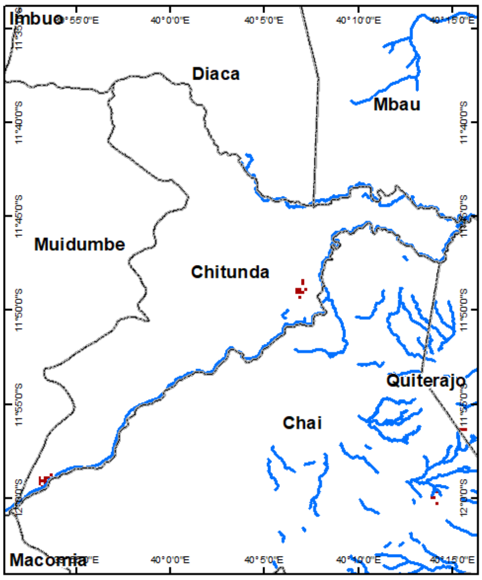
11°55'0"S
12°0'0"S

Drought in 2021


Imbuo
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Muidumbe
Chitunda
Quiterajo
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40°15'0"E
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11°40'0"S
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S

Forest area in 2016 (sq km)	**291**
Forest area in 2021 (sq km)	**345**
Net biomass change in Mg (2016 - 2021)	**401201**

Agricultural area in 2016 (sq km)	**10**
Agricultural area in 2021 (sq km)	**4**
Drought (% of agricultural area in 2021)	**40**

Legend

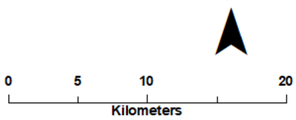
☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	⬛	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	🟥	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
🟦	Forest evergreen open	🟧	Urban area
🟥	Forest plantation	🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto
Miteda

District
Muidumbe

Province
Cabo Delgado


N
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5
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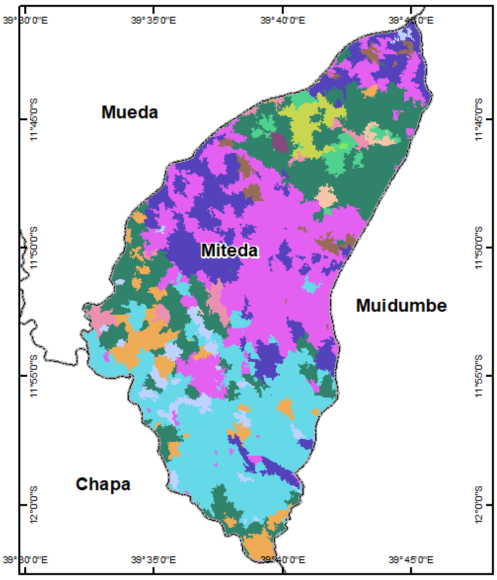
Kilometers

Total population	29757
Total area (sq km)	474

Land cover 2016


39°30'0"E
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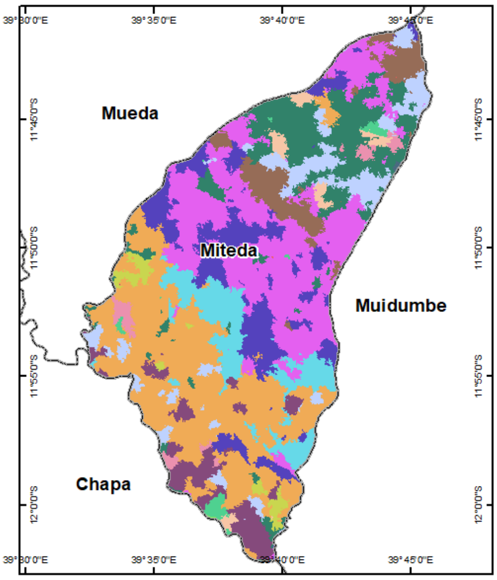
39°45'0"E
11°45'0"S
11°50'0"S
11°55'0"S
12°0'0"S
Mueda
Miteda
Muidumbe
Chapa

Land cover 2021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39°35'0"E
39°40'0"E
39°45'0"E
11°45'0"S
11°50'0"S
11°55'0"S
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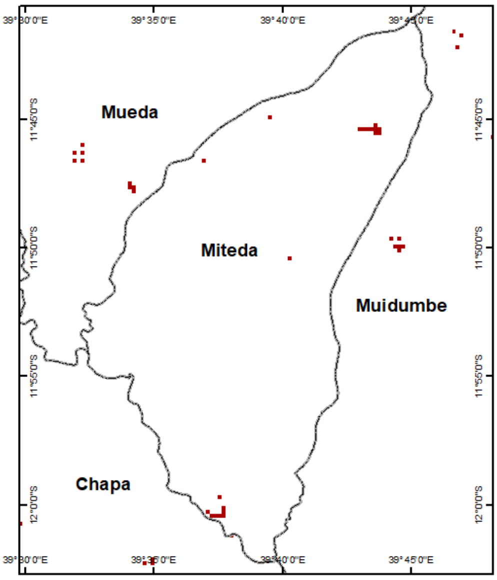
Mueda
Miteda
Muidumbe
Chapa

Drought in 2021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11°55'0"S
12°0'0"S
Mueda
Miteda
Muidumbe
Chapa

Forest area in 2016 (sq km)	267
Forest area in 2021 (sq km)	318
Net biomass change in Mg (2016 - 2021)	543570
Agricultural area in 2016 (sq km)	9
Agricultural area in 2021 (sq km)	4
Drought (% of agricultural area in 2021)	39

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟦 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Muidumbe

District

Muidumbe

Province

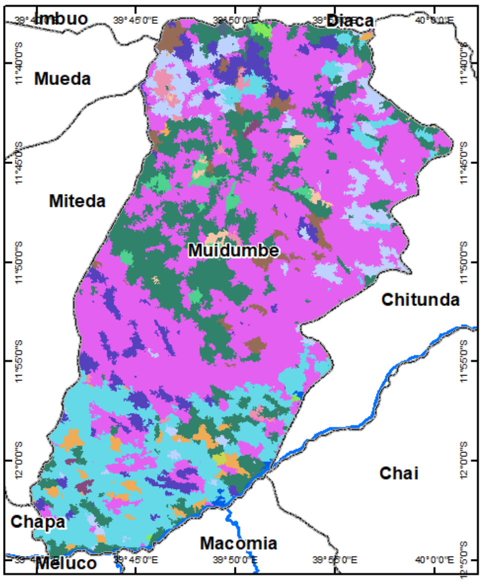
Cabo Delgado

N

0 5 10 20
Kilometers

Total population	31261
Total area (sq km)	1096

Land cover 2016


Mbuo
Diaca
Mueda
Miteda
Muidumbe
Chitunda
Chai
Chapa
Macomia
Meluco
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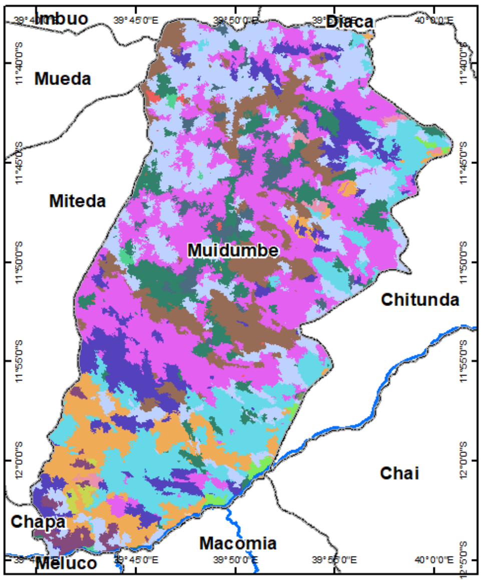
Land cover 2021


Mbuo
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Mueda
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Muidumbe
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Chapa
Macomia
Meluco
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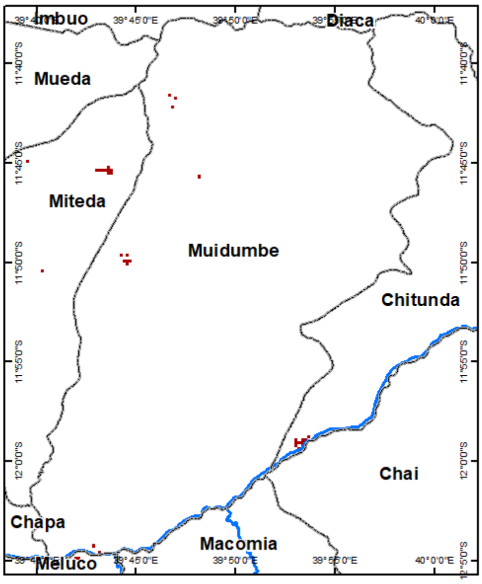
12°5'0"S

Drought in 2021


Mbuo
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Forest area in 2016 (sq km)	776
Forest area in 2021 (sq km)	878
Net biomass change in Mg (2016 - 2021)	1096657

Agricultural area in 2016 (sq km)	15
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	30

Legend

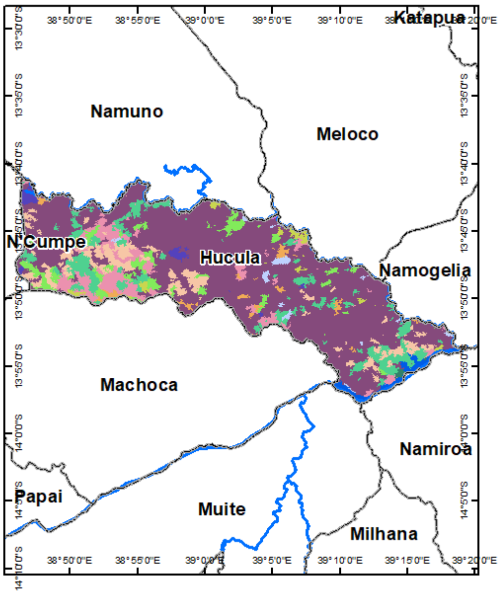
☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Hucula	**Namuno**	**Cabo Delgado**

Total population	20004
Total area (sq km)	762

Land cover 2016


Katapua
Namuno
Meloco
N'Cumpe
Hucula
Namogelia
Machoca
Namiroa
Papai
Muite
Milhana
38°50'0"E
38°55'0"E
39°0'0"E
39°5'0"E
39°10'0"E
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39°20'0"E
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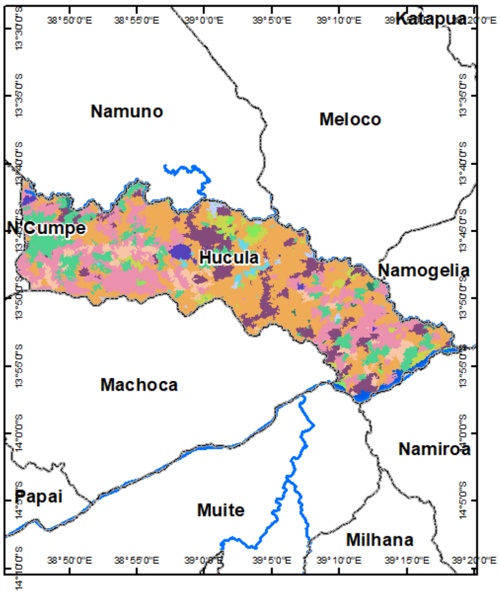
Land cover 2021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Kilometers
Katapua
Namuno
Meloco
N'Cumpe
Hucula
Namogelia
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Milhana
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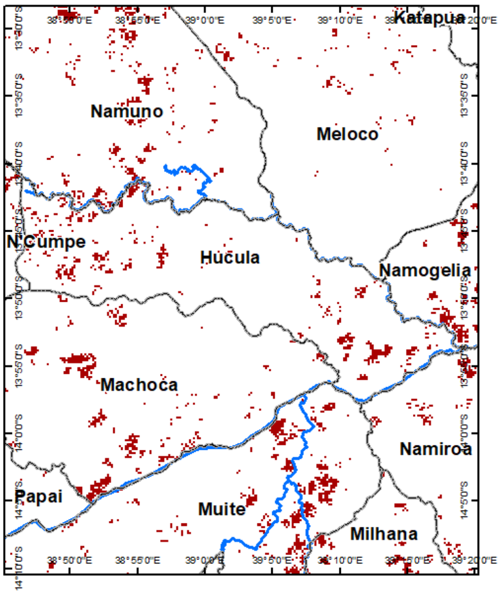
Drought in 2021


Katapua
Namuno
Meloco
N'Cumpe
Hucula
Namogelia
Machoca
Namiroa
Papai
Muite
Milhana
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39°10'0"E
39°15'0"E
39°20'0"E
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S
14°0'0"S
14°5'0"S
14°10'0"S

Forest area in 2016 (sq km)	21
Forest area in 2021 (sq km)	306
Net biomass change in Mg (2016 - 2021)	2482164
Agricultural area in 2016 (sq km)	71
Agricultural area in 2021 (sq km)	92
Drought (% of agricultural area in 2021)	42

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

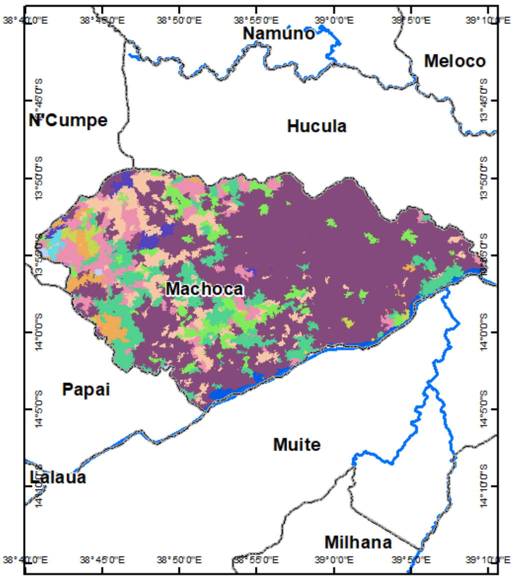
🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Machoca	**Namuno**	**Cabo Delgado**

Total population	35266
Total area (sq km)	931

Land cover 2016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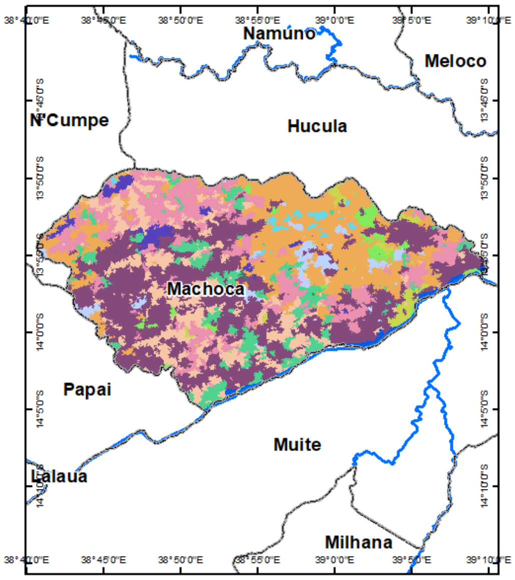
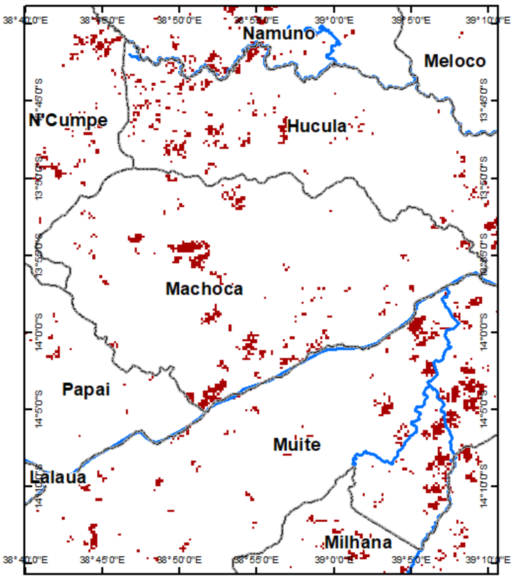
Meloco
N'Cumpe
Hucula
Machoca
Papai
Muite
Lalaua
Milhana

Land cover 2021


Namúno
Meloco
N'Cumpe
Hucula
Machoca
Papai
Muite
Lalaua
Milhana

Drought in 2021


Namúno
Meloco
N'Cumpe
Hucula
Machoca
Papai
Muite
Lalaua
Milhana

Forest area in 2016 (sq km)	31
Forest area in 2021 (sq km)	233
Net biomass change in Mg (2016 - 2021)	1850329

Agricultural area in 2016 (sq km)	107
Agricultural area in 2021 (sq km)	70
Drought (% of agricultural area in 2021)	53

Legend

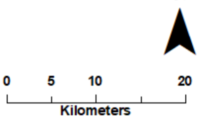
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Meloco	**Namuno**	**Cabo Delgado**


N
0
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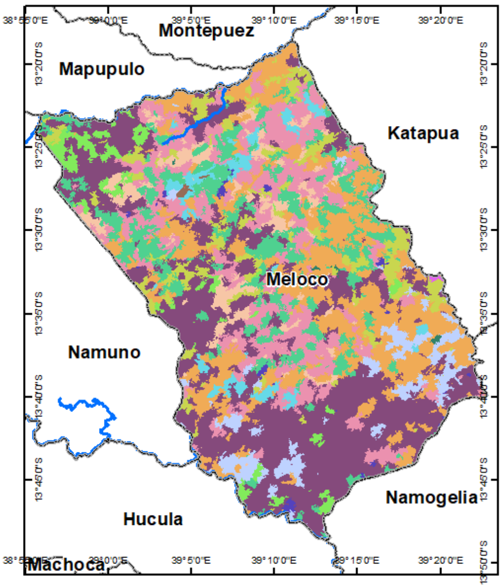
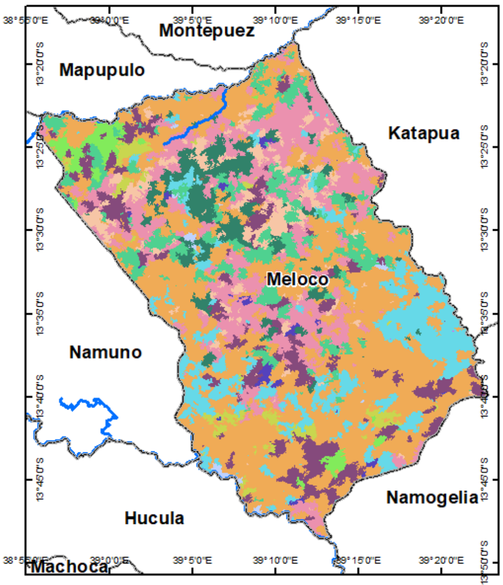
20
Kilometers

Total population	**31816**
Total area (sq km)	**1406**

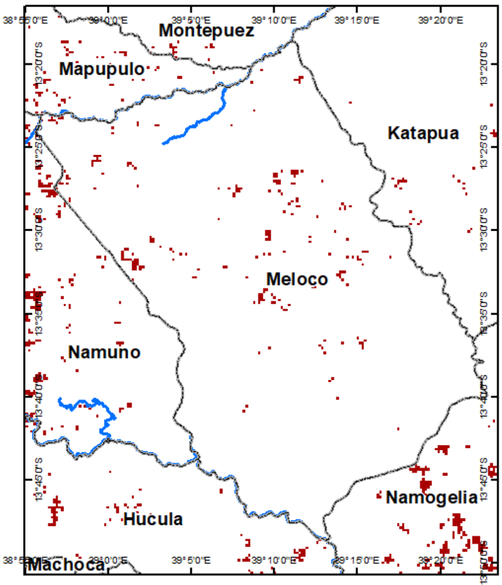
Land cover 2016


Montepuez
Mapupulo
Katapua
Meloco
Namuno
Namogelia
Hucula
Machoca

Land cover 2021


Montepuez
Mapupulo
Katapua
Meloco
Namuno
Namogelia
Hucula
Machoca

Drought in 2021


Montepuez
Mapupulo
Katapua
Meloco
Namuno
Namogelia
Hucula
Machoca

Forest area in 2016 (sq km)	**386**
Forest area in 2021 (sq km)	**721**
Net biomass change in Mg (2016 - 2021)	**2658865**
Agricultural area in 2016 (sq km)	**171**
Agricultural area in 2021 (sq km)	**122**
Drought (% of agricultural area in 2021)	**14**

Legend

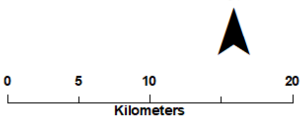
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
N'Cumpe	**Namuno**	**Cabo Delgado**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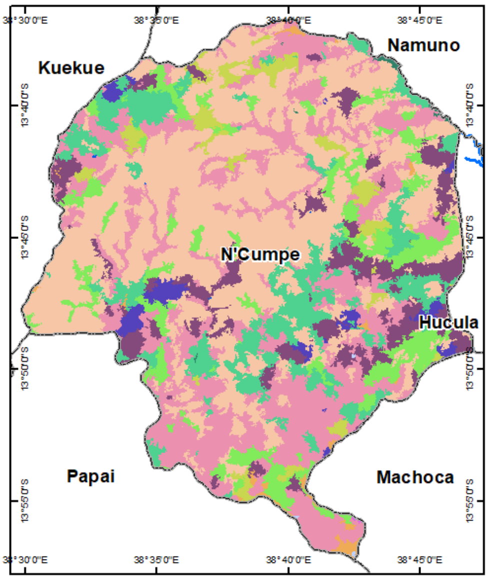
Kilometers

Total population	40692
Total area (sq km)	721

Land cover 2016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Namuno
N'Cumpe
Hucula
Papai
Machoca
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38°45'0"E
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13°45'0"S
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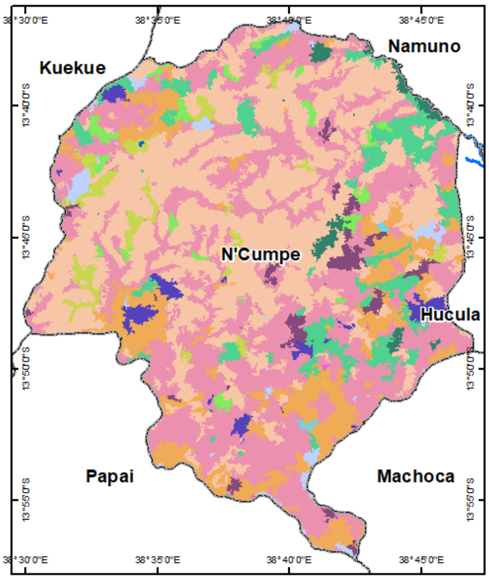
13°55'0"S

Land cover 2021


Kuekue
Namuno
N'Cumpe
Hucula
Papai
Machoca
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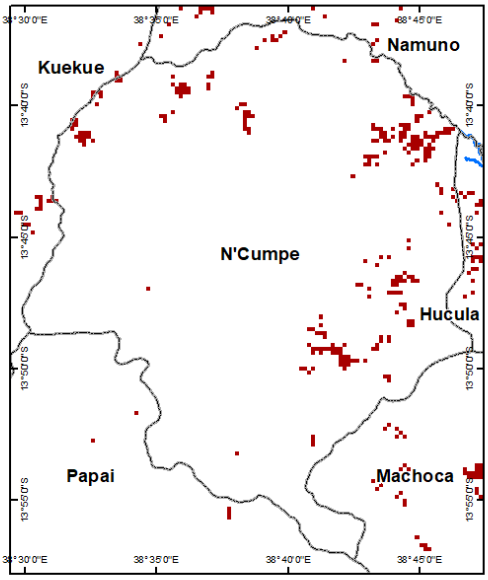
Drought in 2021


Kuekue
Namuno
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Hucula
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Forest area in 2016 (sq km)	6
Forest area in 2021 (sq km)	98
Net biomass change in Mg (2016 - 2021)	849645
Agricultural area in 2016 (sq km)	82
Agricultural area in 2021 (sq km)	48
Drought (% of agricultural area in 2021)	40

Legend

- ⬚ Admin boundary (level 3)
- ─ Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

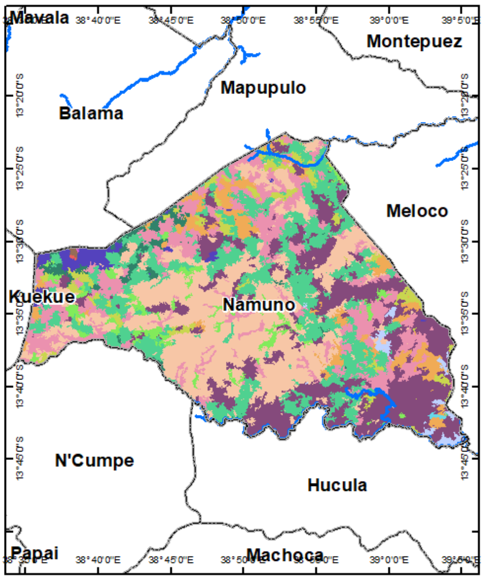
Posto	District	Province
Namuno	**Namuno**	**Cabo Delgado**

Total population	110718
Total area (sq km)	1239

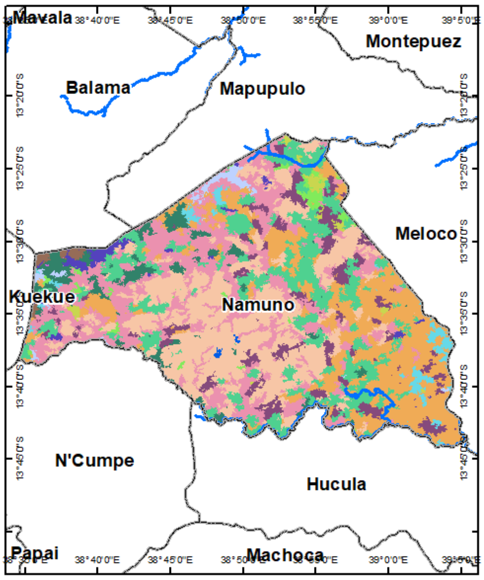
N

0 10 20 40
Kilometers

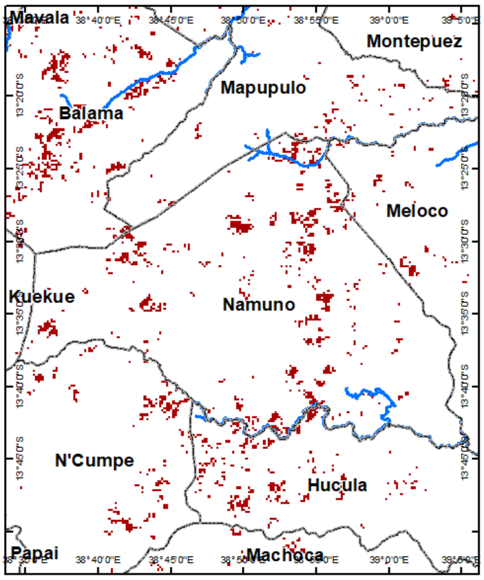
Land cover 2016


Mavala
Montepuez
Mapupulo
Balama
Meloco
Kuekue
Namuno
N'Cumpe
Hucula
Papai
Machoca

Land cover 2021


Mavala
Montepuez
Balama
Mapupulo
Meloco
Kuekue
Namuno
N'Cumpe
Hucula
Papai
Machoca

Drought in 2021


Mavala
Montepuez
Mapupulo
Balama
Meloco
Kuekue
Namuno
N'Cumpe
Hucula
Papai
Machoca

Forest area in 2016 (sq km)	83
Forest area in 2021 (sq km)	297
Net biomass change in Mg (2016 - 2021)	1893680
Agricultural area in 2016 (sq km)	247
Agricultural area in 2021 (sq km)	191
Drought (% of agricultural area in 2021)	32

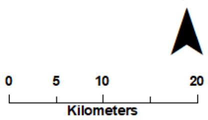
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	🟦 Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Papai	**Namuno**	**Cabo Delgado**

Total population	16384
Total area (sq km)	923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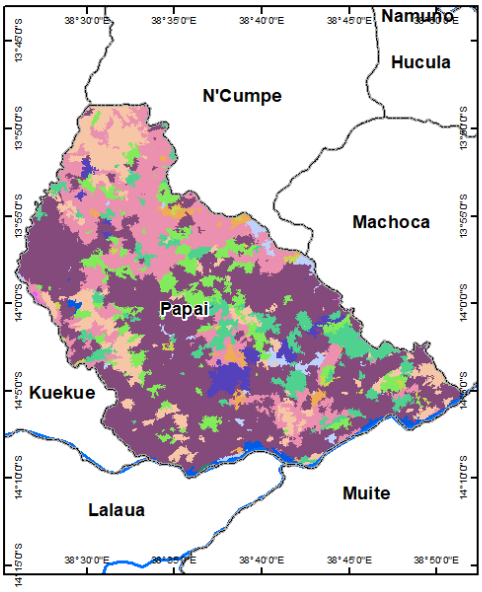
Kilometers

Land cover 2016


Namuno
Hucula
N'Cumpe
Machoca
Papai
Kuekue
Lalaua
Muite
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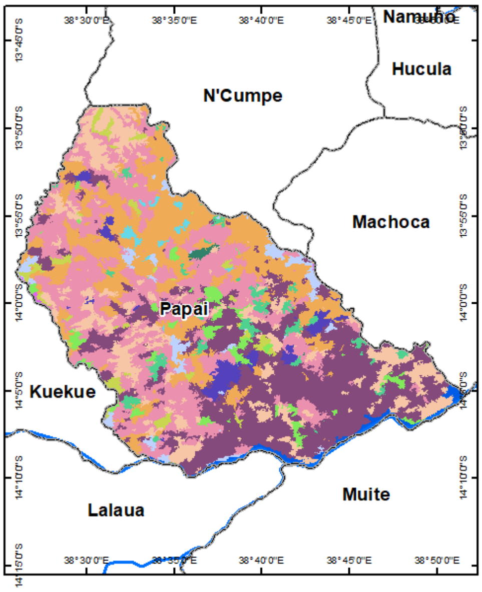
Land cover 2021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Hucula
N'Cumpe
Machoca
Papai
Kuekue
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Muite
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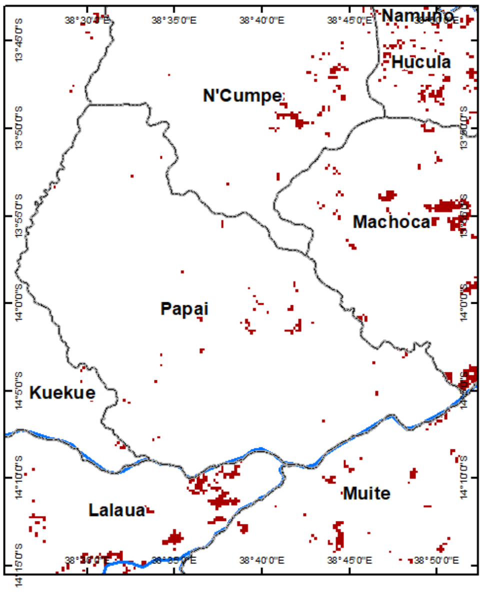
14°15'0"S

Drought in 2021


Namuno
Hucula
N'Cumpe
Machoca
Papai
Kuekue
Lalaua
Muite
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38°45'0"E
38°50'0"E
13°45'0"S
13°50'0"S
13°55'0"S
14°0'0"S
14°5'0"S
14°10'0"S
14°15'0"S

Forest area in 2016 (sq km)	32
Forest area in 2021 (sq km)	219
Net biomass change in Mg (2016 - 2021)	1669504

Agricultural area in 2016 (sq km)	69
Agricultural area in 2021 (sq km)	23
Drought (% of agricultural area in 2021)	24

Legend

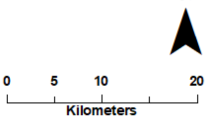
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟪 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
M'Tamba	**Nangade**	**Cabo Delgado**


N
0
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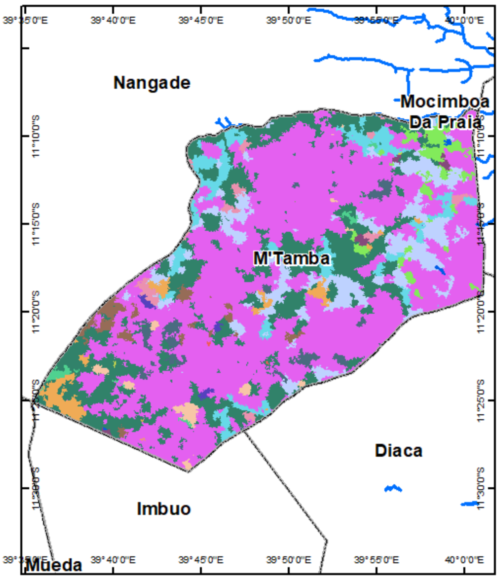
20
Kilometers

Total population	27515
Total area (sq km)	1027

Land cover 2016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Mocimboa Da Praia
M'Tamba
Diaca
Imbuo
Mueda
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39°50'0"E
39°55'0"E
40°0'0"E
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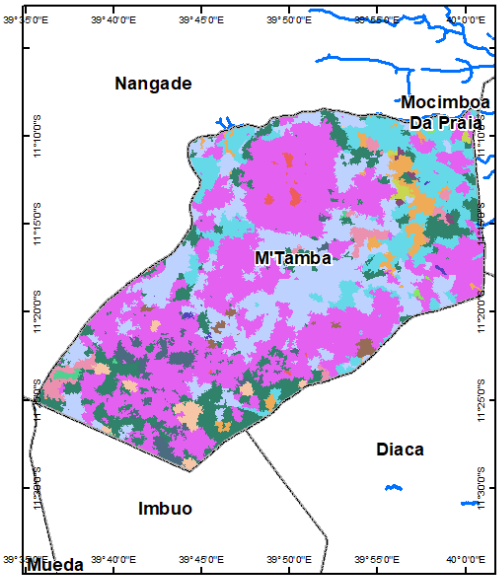
11°15'0"S
11°20'0"S
11°25'0"S
11°30'0"S

Land cover 2021


Nangade
Mocimboa Da Praia
M'Tamba
Diaca
Imbuo
Mueda
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39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
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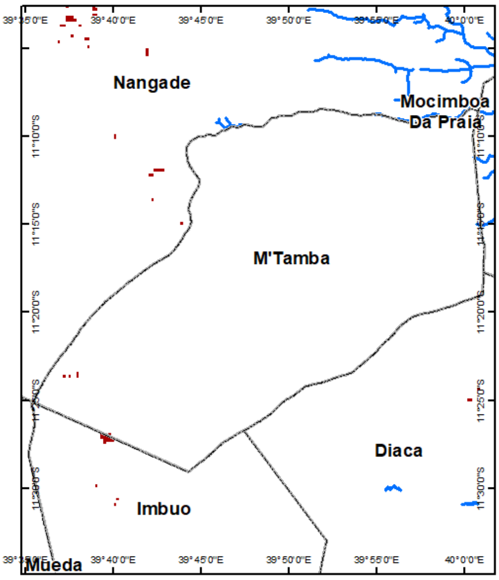
11°20'0"S
11°25'0"S
11°30'0"S

Drought in 2021


Nangade
Mocimboa Da Praia
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Forest area in 2016 (sq km)	759
Forest area in 2021 (sq km)	853
Net biomass change in Mg (2016 - 2021)	881635

Agricultural area in 2016 (sq km)	5
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	14

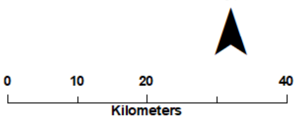
Legend

☐	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

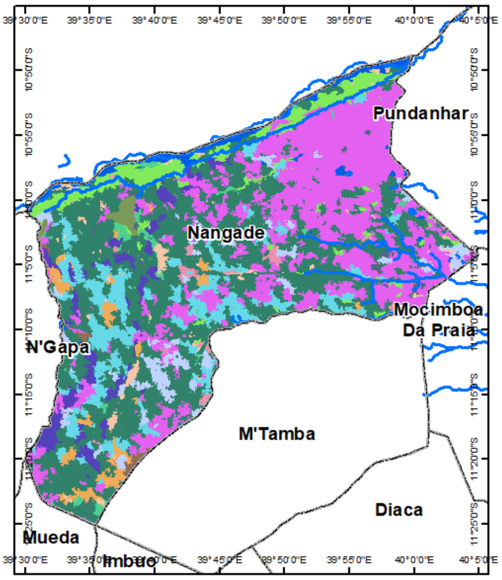
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nangade	**Nangade**	**Cabo Delgado**

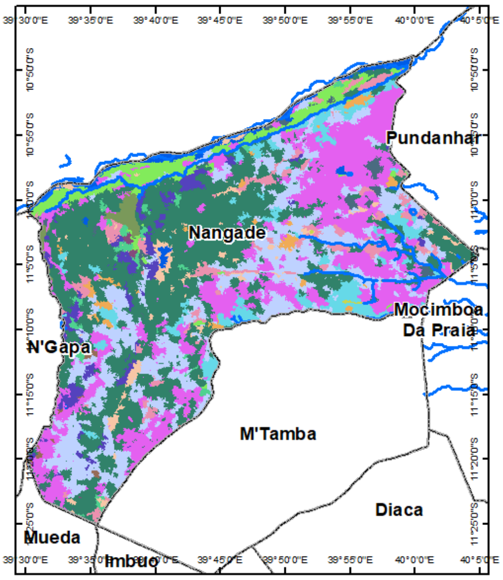
Total population	62681
Total area (sq km)	1940


N
0
10
20
40
Kilometers

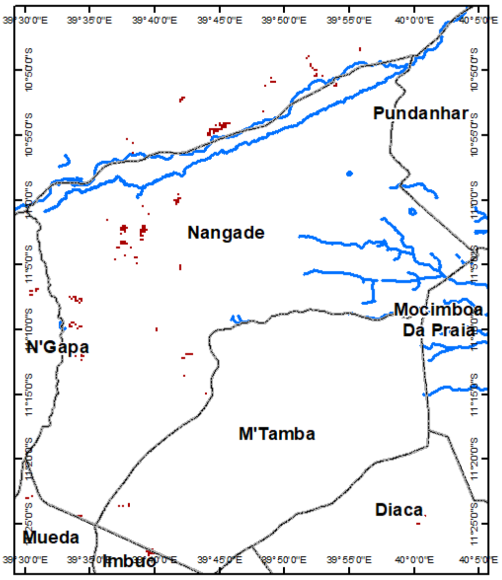
Land cover 2016


Pundanhar
Nangade
Mocimboa Da Praia
N'Gapa
M'Tamba
Diaca
Mueda
Imbuo

Land cover 2021


Pundanhar
Nangade
Mocimboa Da Praia
N'Gapa
M'Tamba
Diaca
Mueda
Imbuo

Drought in 2021


Pundanhar
Nangade
Mocimboa Da Praia
N'Gapa
M'Tamba
Diaca
Mueda
Imbuo

Forest area in 2016 (sq km)	899
Forest area in 2021 (sq km)	976
Net biomass change in Mg (2016 - 2021)	1360328

Agricultural area in 2016 (sq km)	23
Agricultural area in 2021 (sq km)	22
Drought (% of agricultural area in 2021)	36

Legend

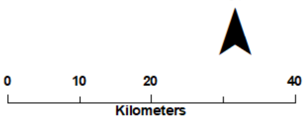
☐ Admin boundary (level 3)
— Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

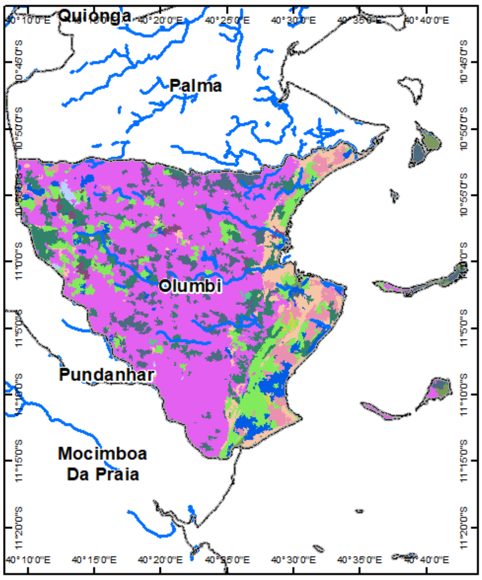
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Olumbi	**Palma**	**Cabo Delgado**


N
0
10
20
40
Kilometers

Total population	12433
Total area (sq km)	1232

Land cover 2016


Quionga
Palma
Olumbi
Pundanhar
Mocimboa
Da Praia
40°10'0"E
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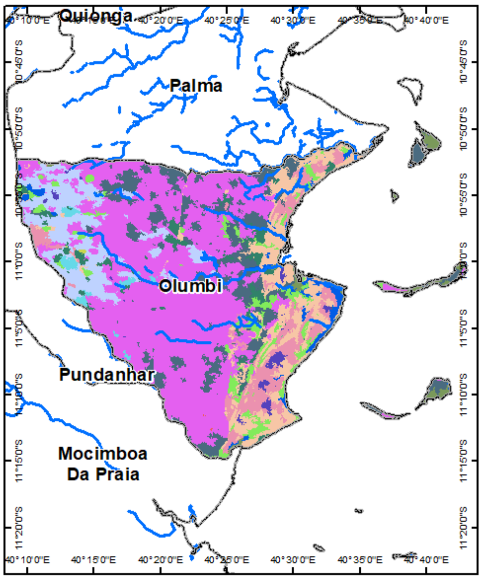
Land cover 2021


Quionga
Palma
Olumbi
Pundanhar
Mocimboa
Da Praia
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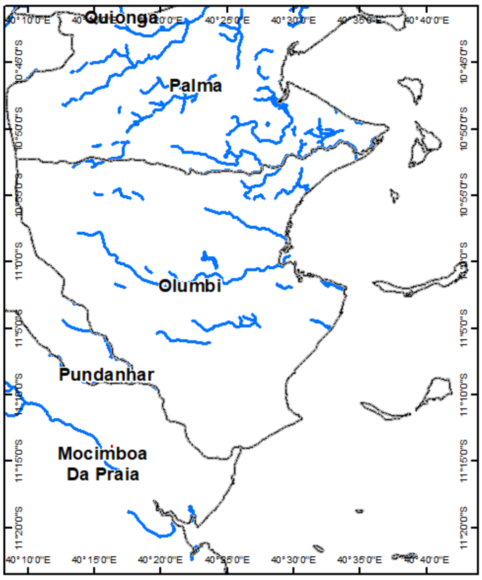
Drought in 2021


Quionga
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Pundanhar
Mocimboa
Da Praia
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10°55'0"S
11°0'0"S
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11°15'0"S
11°20'0"S

Forest area in 2016 (sq km)	789
Forest area in 2021 (sq km)	880
Net biomass change in Mg (2016 - 2021)	958203

Agricultural area in 2016 (sq km)	2
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

- ▭ Admin boundary (level 3)
- — Waterways

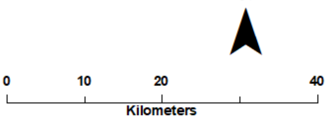
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mercrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

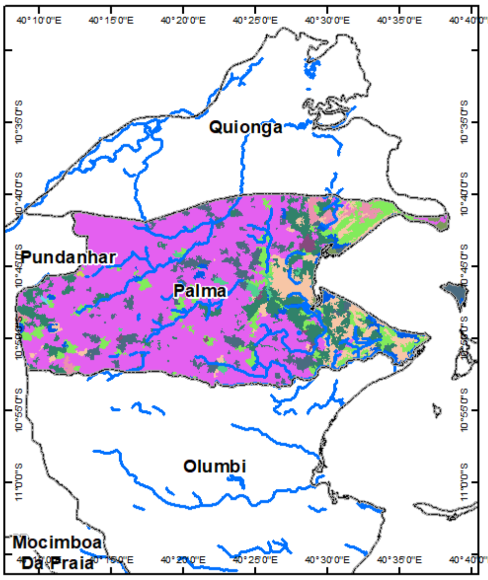
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Palma	**Palma**	**Cabo Delgado**

Total population	32915
Total area (sq km)	899


N
0
10
20
40
Kilometers

Land cover 2016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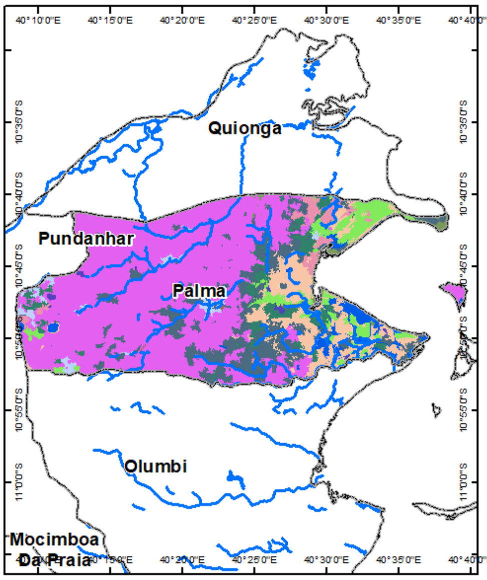
Quionga
Pundanhar
Palma
Olumbi
Mocimboa
Da Praia

Land cover 2021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10°50'0"S
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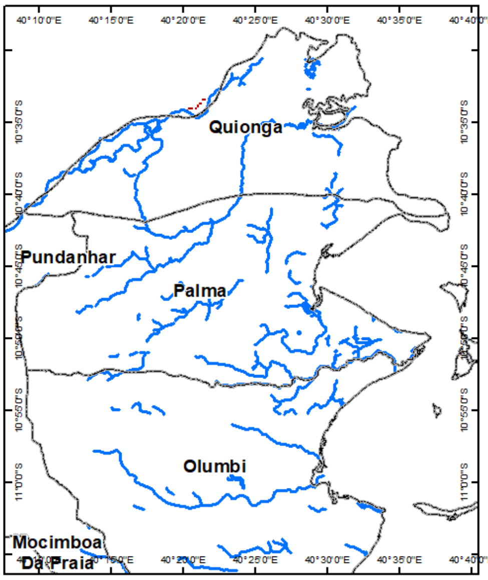
11°0'0"S
Quionga
Pundanhar
Palma
Olumbi
Mocimboa
Da Praia

Drought in 2021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Quionga
Pundanhar
Palma
Olumbi
Mocimboa
Da Praia

Forest area in 2016 (sq km)	602
Forest area in 2021 (sq km)	665
Net biomass change in Mg (2016 - 2021)	599834

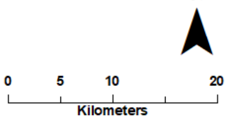
Agricultural area in 2016 (sq km)	9
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

□ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

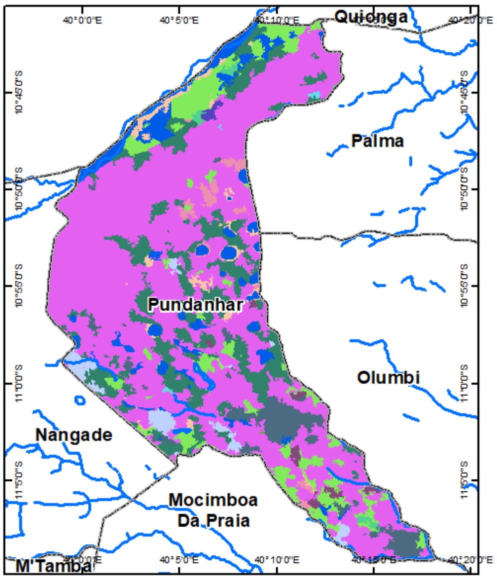
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Pundanhar	**Palma**	**Cabo Delgado**


N
0
5
10
20
Kilometers

Total population	5245
Total area (sq km)	785

Land cover 2016


Quionga
Palma
Pundanhar
Olumbi
Nangade
Mocimboa Da Praia
M'Tamba
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40°15'0"E
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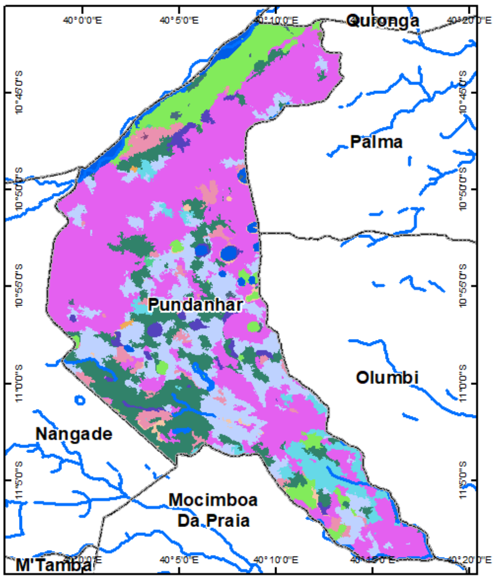
11°5'0"S

Land cover 2021


Quionga
Palma
Pundanhar
Olumbi
Nangade
Mocimboa Da Praia
M'Tamba
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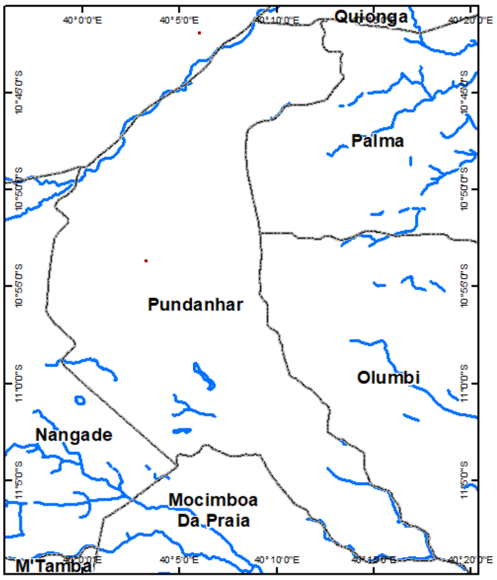
10°55'0"S
11°0'0"S
11°5'0"S

Drought in 2021


Quionga
Palma
Pundanhar
Olumbi
Nangade
Mocimboa Da Praia
M'Tamba
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40°15'0"E
40°20'0"E
10°45'0"S
10°50'0"S
10°55'0"S
11°0'0"S
11°5'0"S

Forest area in 2016 (sq km)	516
Forest area in 2021 (sq km)	525
Net biomass change in Mg (2016 - 2021)	66490
Agricultural area in 2016 (sq km)	4
Agricultural area in 2021 (sq km)	1
Drought (% of agricultural area in 2021)	9

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

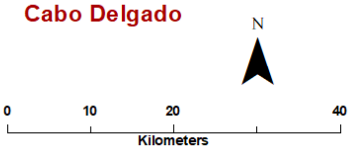
Quionga

District

Palma

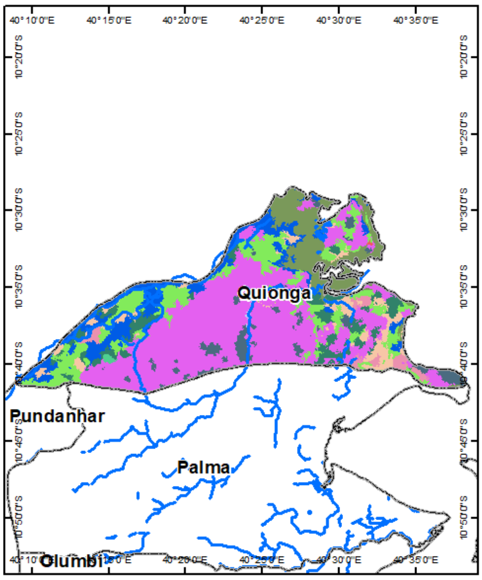
Province

Cabo Delgado


N
0
10
20
40
Kilometers

Total population	7568
Total area (sq km)	607

Land cover 2016


Quionga
Pundanhar
Palma
Olumbi
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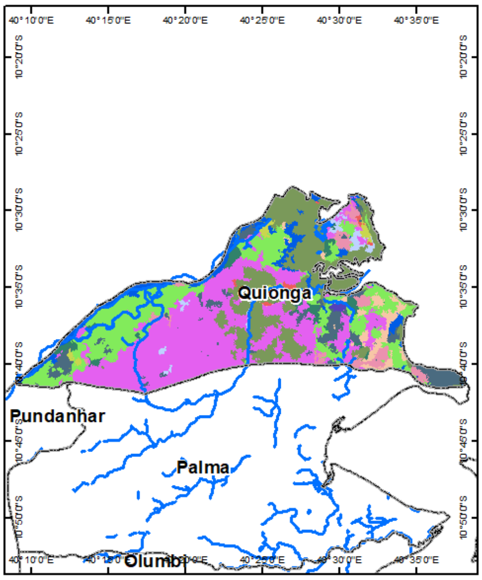
Land cover 2021


Quionga
Pundanhar
Palma
Olumbi
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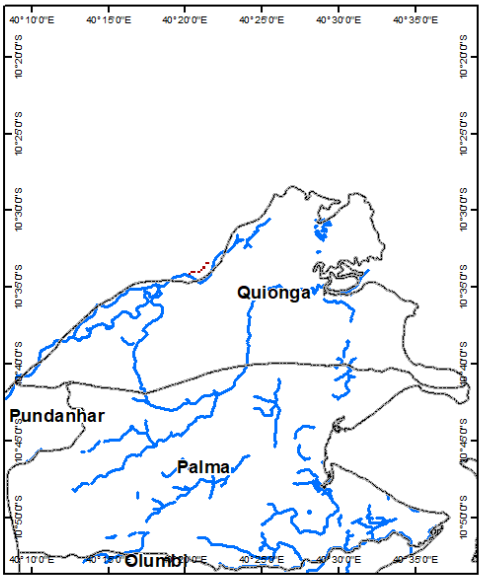
Drought in 2021


Quionga
Pundanhar
Palma
Olumbi
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10°20'0"S
10°25'0"S
10°30'0"S
10°35'0"S
10°40'0"S
10°45'0"S
10°50'0"S

Forest area in 2016 (sq km)	360
Forest area in 2021 (sq km)	382
Net biomass change in Mg (2016 - 2021)	22108

Agricultural area in 2016 (sq km)	1
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

- ▭ Admin boundary (level 3)
- — Waterways

Land cover

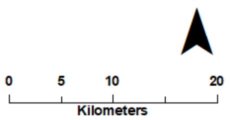
- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto
Bilibiza

District
Quissanga

Province
Cabo Delgado


N
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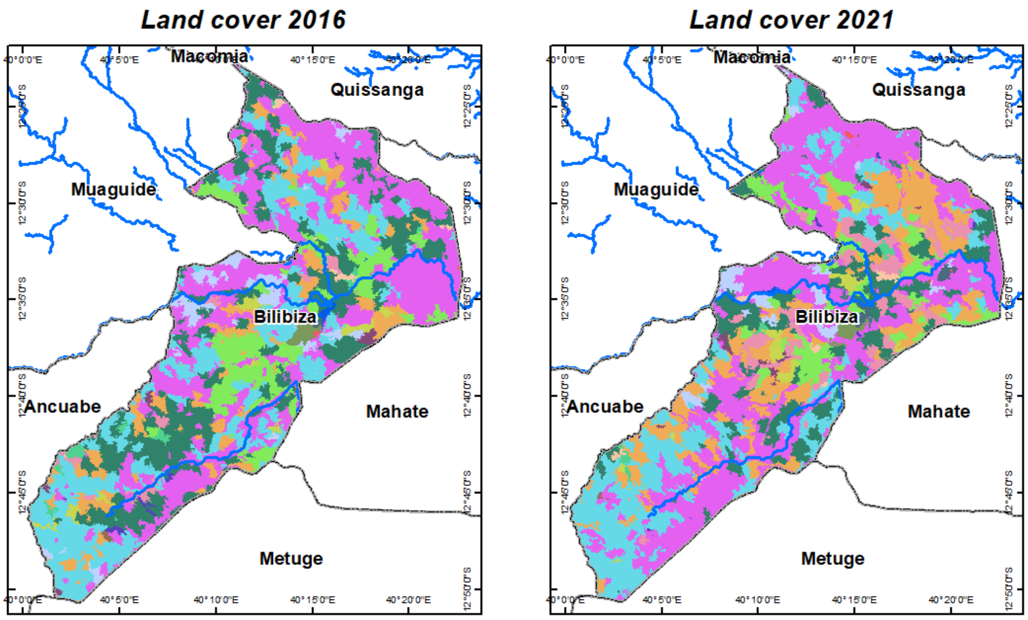
Kilometers

Total population	15946
Total area (sq km)	787


Land cover 2016
Land cover 2021
Macomia
Quissanga
Muaguide
Bilibiza
Ancuabe
Mahate
Metuge
40°5'0"E
40°10'0"E
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40°20'0"E
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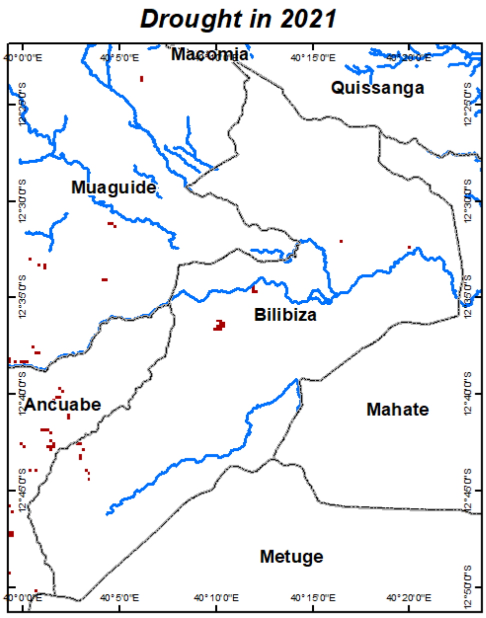
Drought in 2021
Macomia
Quissanga
Muaguide
Bilibiza
Ancuabe
Mahate
Metuge
40°5'0"E
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40°20'0"E
12°25'0"S
12°30'0"S
12°35'0"S
12°40'0"S
12°45'0"S
12°50'0"S

Forest area in 2016 (sq km)	522
Forest area in 2021 (sq km)	574
Net biomass change in Mg (2016 - 2021)	552921

Agricultural area in 2016 (sq km)	7
Agricultural area in 2021 (sq km)	5
Drought (% of agricultural area in 2021)	37

Legend

☐ Admin boundary (level 3)
— Waterways

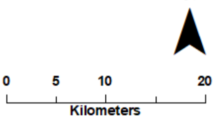
Land cover

🟪 Bare ground	🟩 Mangrove
🟩 Flooded herbacеous area	🟦 Mecrusse
🟦 Forest deciduous closed	🟫 Mountain forest
🟧 Forest deciduous open	🟩 Non-tree cultivation
🟪 Forest evergreen closed	🟨 Prairie
🟦 Forest evergreen open	🟥 Prairie tree
🟥 Forest plantation	🟪 Rock without vegetation
	🟩 Tree cultivation
	🟧 Urban area
	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mahate	**Quissanga**	**Cabo Delgado**

Total population	20916
Total area (sq km)	875


N
0
5
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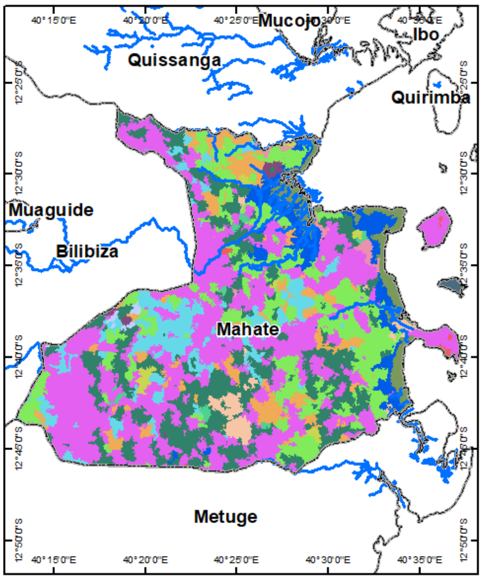
Kilometers

Land cover 2016


Mucojo
Ibo
Quissanga
Quirimba
Muaguide
Bilibiza
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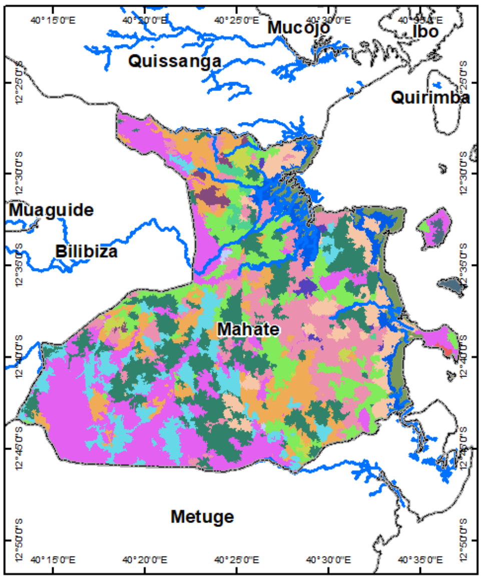
Land cover 2021


Mucojo
Ibo
Quissanga
Quirimba
Muaguide
Bilibiza
Mahate
Metuge
40°15'0"E
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12°30'0"S
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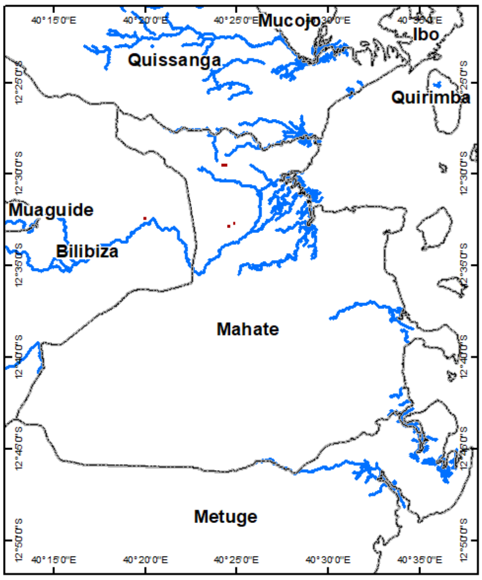
12°40'0"S
12°45'0"S
12°50'0"S

Drought in 2021


Mucojo
Ibo
Quissanga
Quirimba
Muaguide
Bilibiza
Mahate
Metuge
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
12°25'0"S
12°30'0"S
12°35'0"S
12°40'0"S
12°45'0"S
12°50'0"S

Forest area in 2016 (sq km)	486
Forest area in 2021 (sq km)	400
Net biomass change in Mg (2016 - 2021)	-1267275

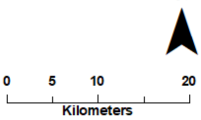
Agricultural area in 2016 (sq km)	5
Agricultural area in 2021 (sq km)	7
Drought (% of agricultural area in 2021)	4

Legend

⬜	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

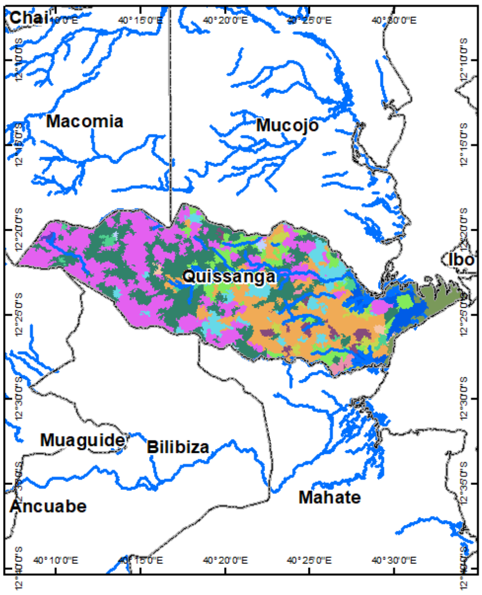
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Quissanga	**Quissanga**	**Cabo Delgado**

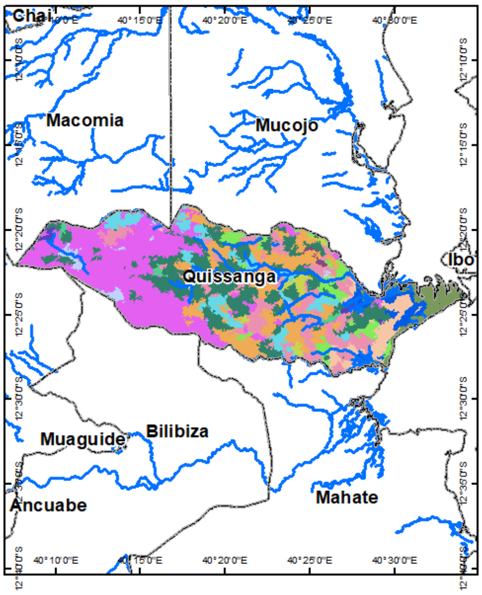

N
0
5
10
20
Kilometers

Total population	4882
Total area (sq km)	455

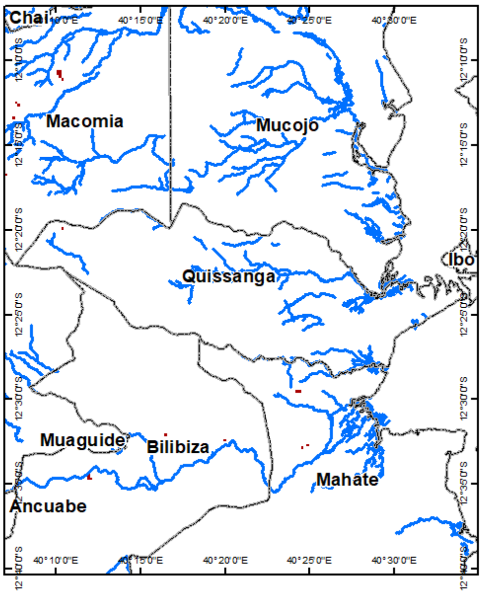
Land cover 2016


Chai
Macomia
Mucojo
Quissanga
Ibo
Muaguide
Bilibiza
Ancuabe
Mahate
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
12°10'0"S
12°15'0"S
12°20'0"S
12°25'0"S
12°30'0"S
12°35'0"S
12°40'0"S

Land cover 2021


Chai
Macomia
Mucojo
Quissanga
Ibo
Muaguide
Bilibiza
Ancuabe
Mahate
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
12°10'0"S
12°15'0"S
12°20'0"S
12°25'0"S
12°30'0"S
12°35'0"S
12°40'0"S

Drought in 2021


Chai
Macomia
Mucojo
Quissanga
Ibo
Muaguide
Bilibiza
Ancuabe
Mahate
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
12°10'0"S
12°15'0"S
12°20'0"S
12°25'0"S
12°30'0"S
12°35'0"S
12°40'0"S

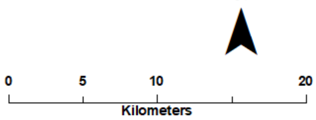
Forest area in 2016 (sq km)	252
Forest area in 2021 (sq km)	245
Net biomass change in Mg (2016 - 2021)	-32989
Agricultural area in 2016 (sq km)	6
Agricultural area in 2021 (sq km)	3
Drought (% of agricultural area in 2021)	3

Legend

▭ Admin boundary (level 3)	🟩 Mangrove
— Waterways	■ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

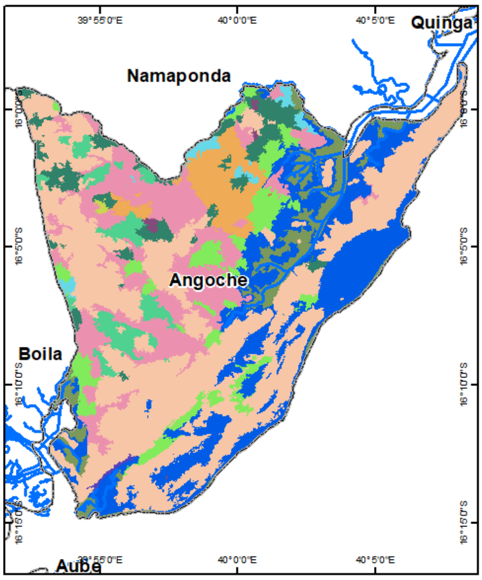
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Angoche	**Angoche**	**Nampula**

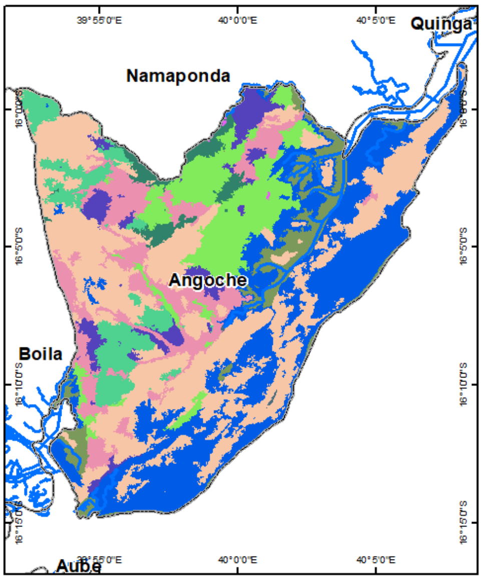

N
0
5
10
20
Kilometers

Total population	66932
Total area (sq km)	474

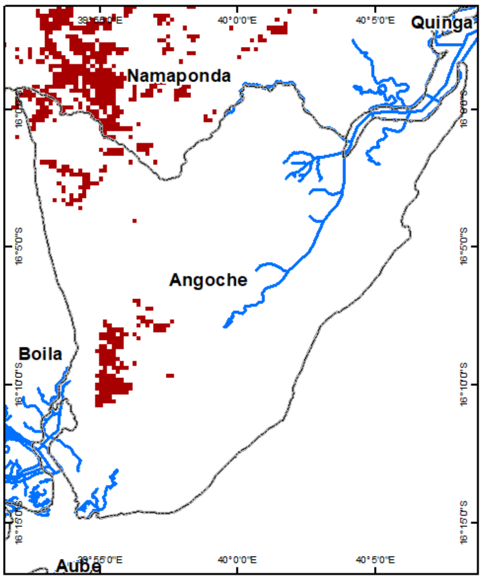
Land cover 2016


39°55'0"E
40°0'0"E
40°5'0"E
Quinga
Namaponda
Angoche
Boila
Aube
16°0'0"S
16°5'0"S
16°10'0"S
16°15'0"S

Land cover 2021


39°55'0"E
40°0'0"E
40°5'0"E
Quinga
Namaponda
Angoche
Boila
Aube
16°0'0"S
16°5'0"S
16°10'0"S
16°15'0"S

Drought in 2021


39°55'0"E
40°0'0"E
40°5'0"E
Quinga
Namaponda
Angoche
Boila
Aube
16°0'0"S
16°5'0"S
16°10'0"S
16°15'0"S

Forest area in 2016 (sq km)	61
Forest area in 2021 (sq km)	34
Net biomass change in Mg (2016 - 2021)	-232557
Agricultural area in 2016 (sq km)	17
Agricultural area in 2021 (sq km)	30
Drought (% of agricultural area in 2021)	56

Legend

▭ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

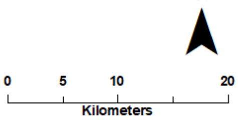
Aube

District

Angoche

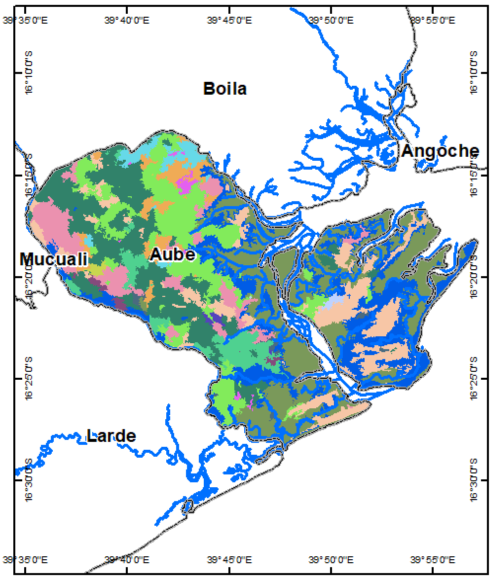
Province

Nampula


N
0
5
10
20
Kilometers

Total population	**150061**
Total area (sq km)	**552**

Land cover 2016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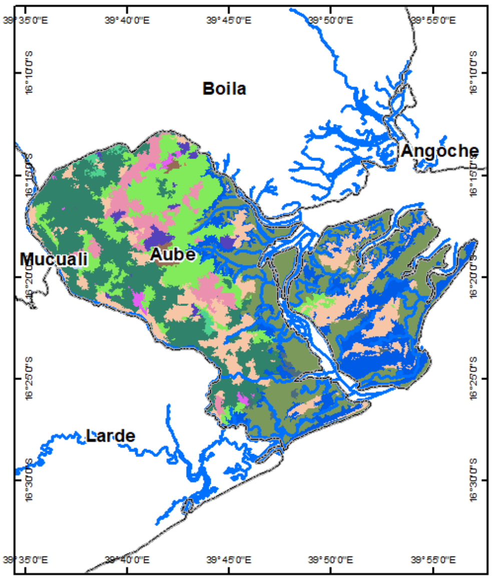
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S
16°30'0"S
Boila
Angoche
Mucuali
Aube
Larde

Land cover 2021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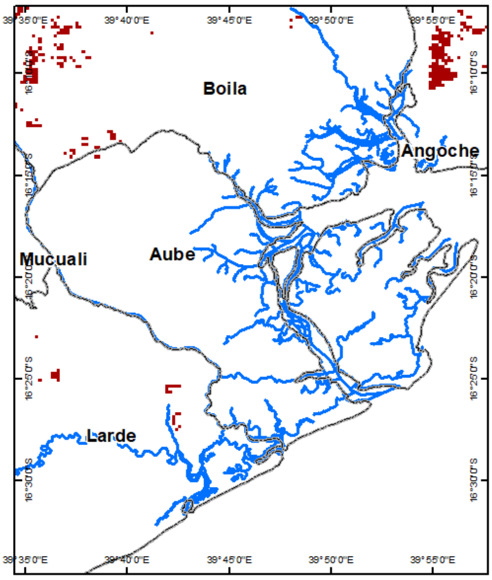
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S
16°30'0"S
Boila
Angoche
Mucuali
Aube
Larde

Drought in 2021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39°45'0"E
39°50'0"E
39°55'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S
16°30'0"S
Boila
Angoche
Mucuali
Aube
Larde

Forest area in 2016 (sq km)	**183**
Forest area in 2021 (sq km)	**163**
Net biomass change in Mg (2016 - 2021)	**-150487**
Agricultural area in 2016 (sq km)	**23**
Agricultural area in 2021 (sq km)	**4**
Drought (% of agricultural area in 2021)	**4**

Legend

- ☐ Admin boundary (level 3)
- ▬ Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

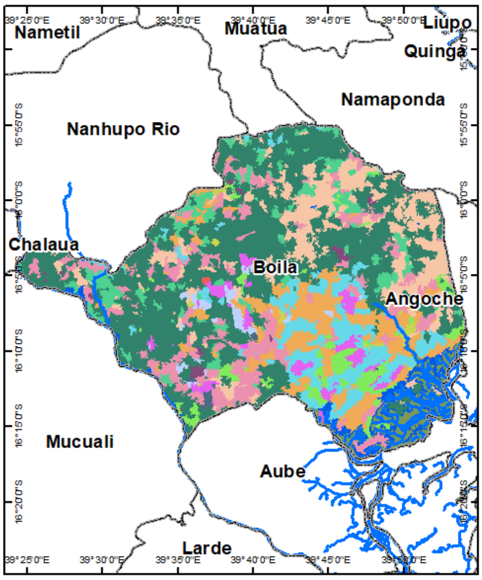
Posto	District	Province
Boila	**Angoche**	**Nampula**

Total population	104360
Total area (sq km)	1253

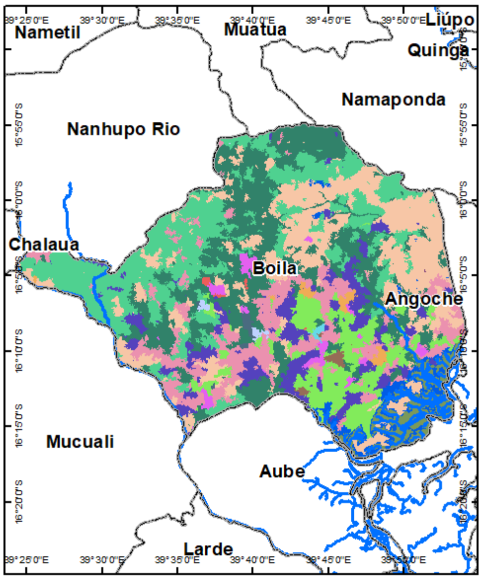
N

0 10 20 40
Kilometers

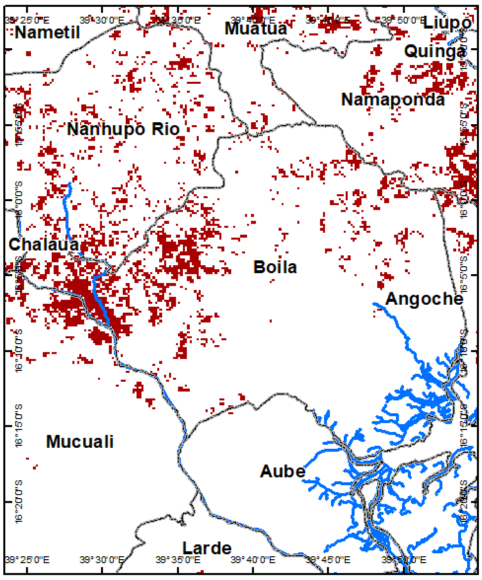
Land cover 2016


Nametil
Muatua
Liupo
Quinga
Namaponda
Nanhupo Rio
Chalaua
Boila
Angoche
Mucuali
Aube
Larde
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
15°55'0"S
16°0'0"S
16°5'0"S
16°10'0"S
16°15'0"S
16°20'0"S

Land cover 2021


Nametil
Muatua
Liúpo
Quinga
Namaponda
Nanhupo Rio
Chalaua
Boila
Angoche
Mucuali
Aube
Larde
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
15°55'0"S
16°0'0"S
16°5'0"S
16°10'0"S
16°15'0"S
16°20'0"S

Drought in 2021


Nametil
Muatua
Liupo
Quinga
Namaponda
Nanhupo Rio
Chalaua
Boila
Angoche
Mucuali
Aube
Larde
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
16°0'0"S
16°10'0"S
16°15'0"S
16°20'0"S

Forest area in 2016 (sq km)	331
Forest area in 2021 (sq km)	99
Net biomass change in Mg (2016 - 2021)	-2119044
Agricultural area in 2016 (sq km)	78
Agricultural area in 2021 (sq km)	272
Drought (% of agricultural area in 2021)	46

Legend

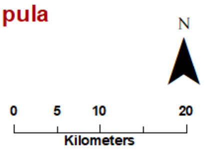
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
🟦 Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

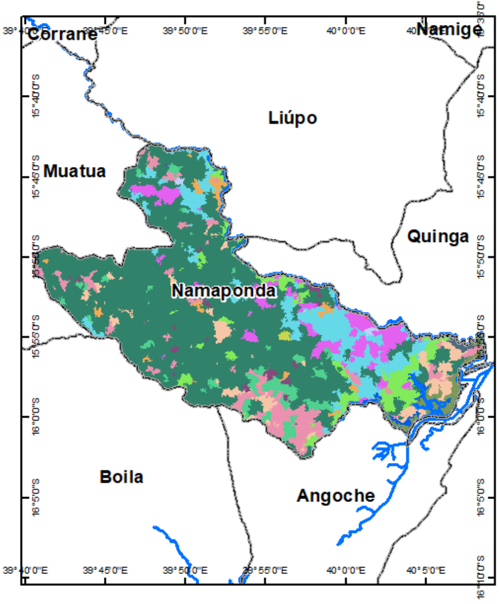
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namaponda	**Angoche**	**Nampula**


N
0
5
10
20
Kilometers

Total population	**40398**
Total area (sq km)	**740**

Land cover 2016


Corrane
Namige
Liúpo
Muatua
Quinga
Namaponda
Boila
Angoche
39°40'0"E
39°45'0"E
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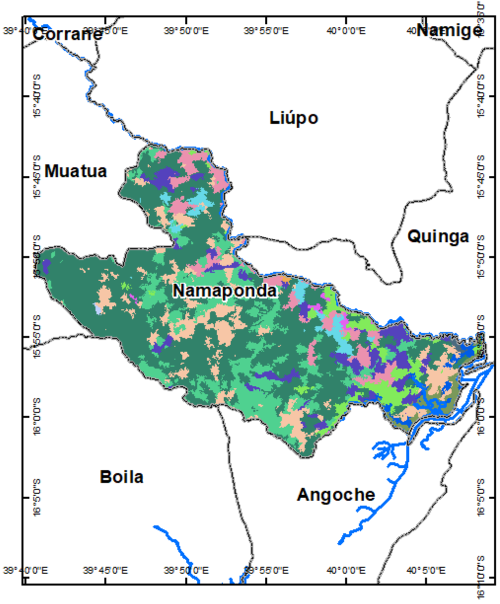
39°55'0"E
40°0'0"E
40°5'0"E
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S
16°5'0"S
16°10'0"S

Land cover 2021


Corrane
Namige
Liúpo
Muatua
Quinga
Namaponda
Boila
Angoche
39°40'0"E
39°45'0"E
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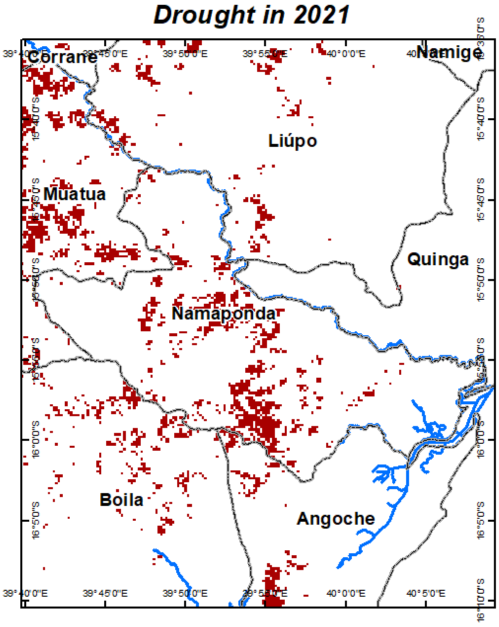
39°55'0"E
40°0'0"E
40°5'0"E
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S
16°5'0"S
16°10'0"S

Drought in 2021


Corrane
Namige
Liúpo
Muatua
Quinga
Namaponda
Boila
Angoche
39°40'0"E
39°45'0"E
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40°0'0"E
40°5'0"E
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S
16°5'0"S
16°10'0"S

Forest area in 2016 (sq km)	**159**
Forest area in 2021 (sq km)	**43**
Net biomass change in Mg (2016 - 2021)	**-1187210**
Agricultural area in 2016 (sq km)	**29**
Agricultural area in 2021 (sq km)	**125**
Drought (% of agricultural area in 2021)	**59**

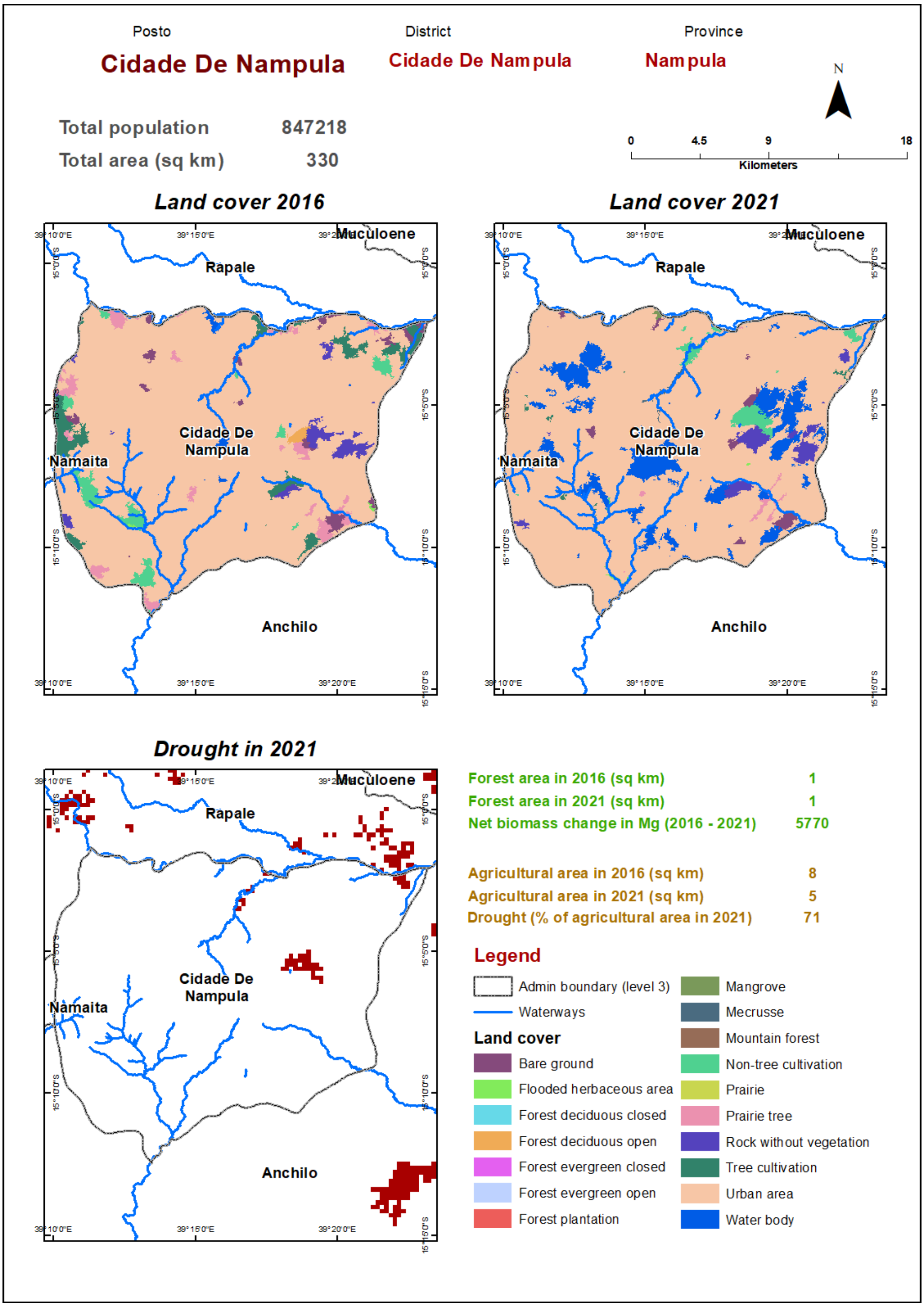
Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


N
0
4.5
9
18
Kilometers
Land cover 2016
Land cover 2021
Drought in 2021
Muculoene
Rapale
Cidade De Nampula
Namaita
Anchilo
39°10'0"E
39°15'0"E
39°20'0"E
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S

Posto	District	Province
Cidade De Nampula	**Cidade De Nampula**	**Nampula**

Total population	847218
Total area (sq km)	330

Forest area in 2016 (sq km)	1
Forest area in 2021 (sq km)	1
Net biomass change in Mg (2016 - 2021)	5770
Agricultural area in 2016 (sq km)	8
Agricultural area in 2021 (sq km)	5
Drought (% of agricultural area in 2021)	71

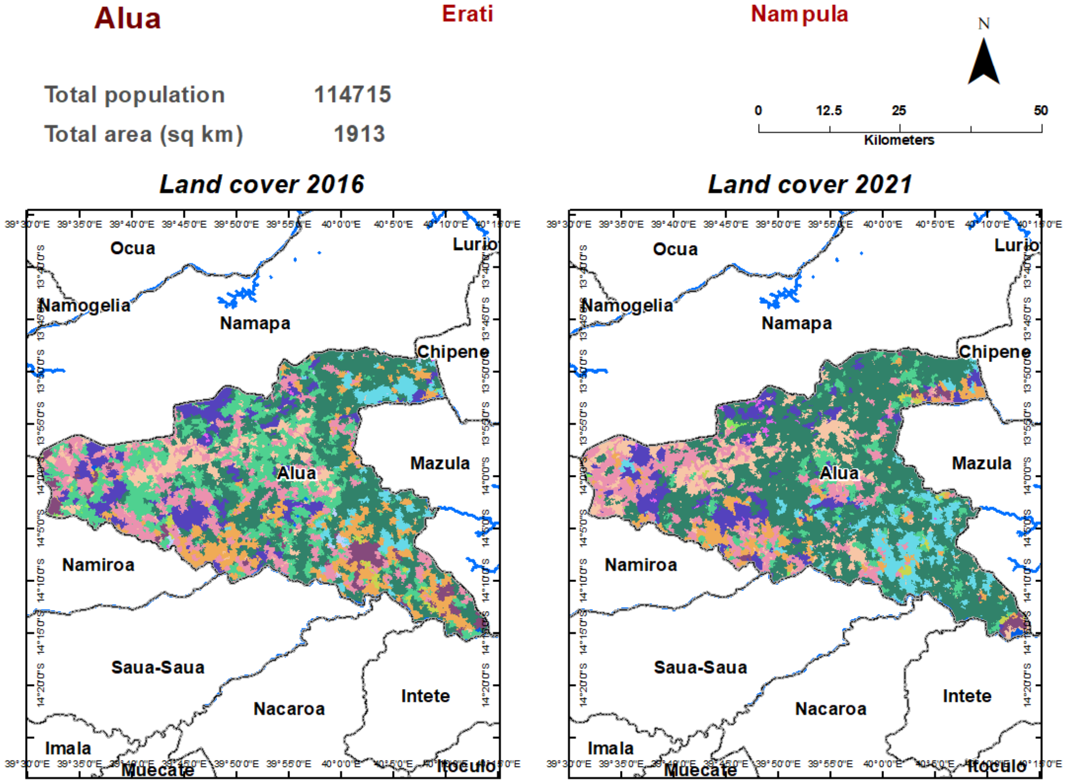
Legend

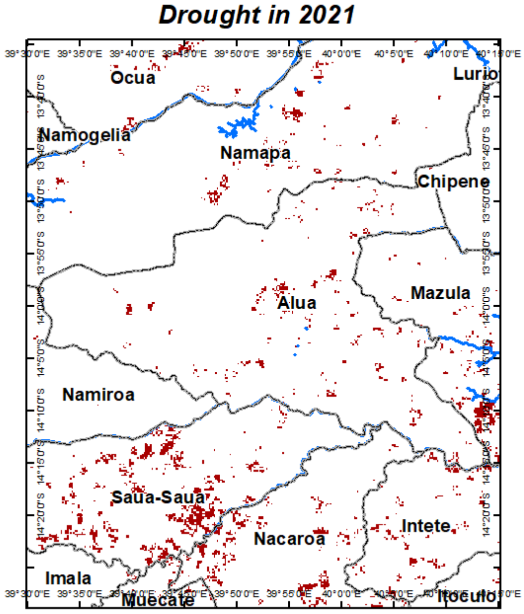
☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Alua	**Erati**	**Nampula**

Total population	114715
Total area (sq km)	1913


N
0
12.5
25
50
Kilometers
Land cover 2016
Land cover 2021
Ocua
Lurio
Namogelia
Namapa
Chipene
Alua
Mazula
Namiroa
Saua-Saua
Nacaroa
Intete
Imala
Muecate
Itoculo


Drought in 2021
Ocua
Lurio
Namogelia
Namapa
Chipene
Alua
Mazula
Namiroa
Saua-Saua
Nacaroa
Intete
Imala
Muecate
Itoculo

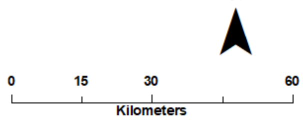
Forest area in 2016 (sq km)	293
Forest area in 2021 (sq km)	247
Net biomass change in Mg (2016 - 2021)	-405919
Agricultural area in 2016 (sq km)	371
Agricultural area in 2021 (sq km)	107
Drought (% of agricultural area in 2021)	32

Legend

☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

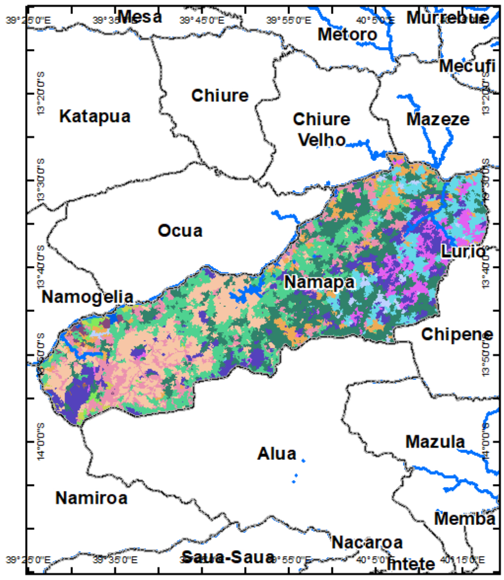
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namapa	**Erati**	**Nampula**

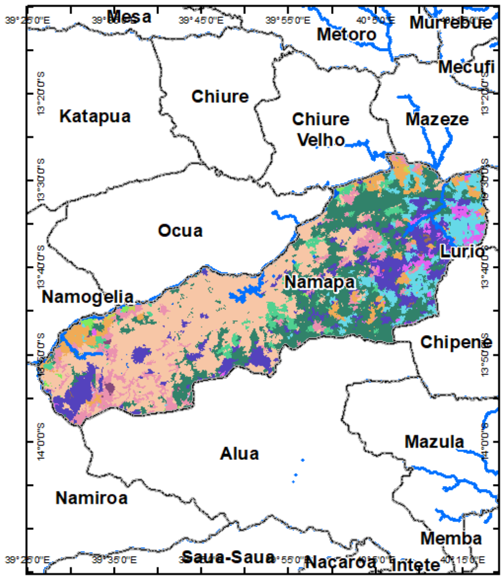

N
0
15
30
60
Kilometers

Total population	**150885**
Total area (sq km)	**2259**

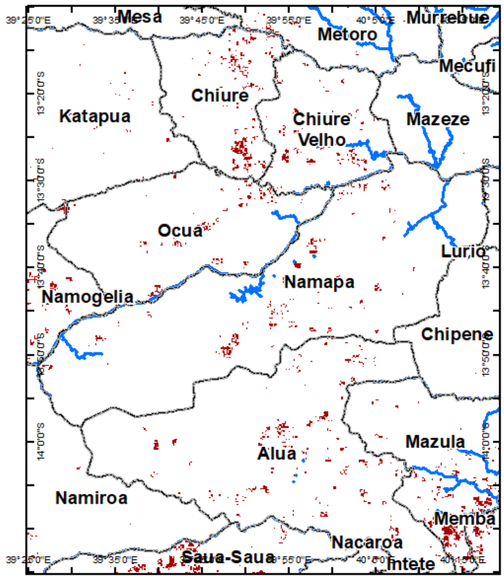
Land cover 2016


Mesa
Murrebue
Metoro
Mecufi
Katapua
Chiure
Chiure Velho
Mazeze
Ocua
Lurio
Namapa
Namogelia
Chipene
Alua
Mazula
Namiroa
Memba
Nacaroa
Saua-Saua
Intete

Land cover 2021


Mesa
Murrebue
Metoro
Mecufi
Katapua
Chiure
Chiure Velho
Mazeze
Ocua
Lurio
Namapa
Namogelia
Chipene
Alua
Mazula
Namiroa
Memba
Saua-Saua
Nacaroa
Intete

Drought in 2021


Mesa
Murrebue
Metoro
Mecufi
Katapua
Chiure
Chiure Velho
Mazeze
Ocua
Lurio
Namapa
Namogelia
Chipene
Alua
Mazula
Namiroa
Memba
Nacaroa
Saua-Saua
Intete

Forest area in 2016 (sq km)	**448**
Forest area in 2021 (sq km)	**336**
Net biomass change in Mg (2016 - 2021)	**-1377171**
Agricultural area in 2016 (sq km)	**385**
Agricultural area in 2021 (sq km)	**81**
Drought (% of agricultural area in 2021)	**35**

Legend

- ☐ Admin boundary (level 3)
- — Waterways

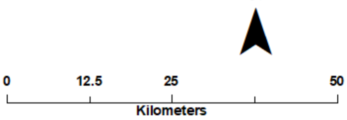
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

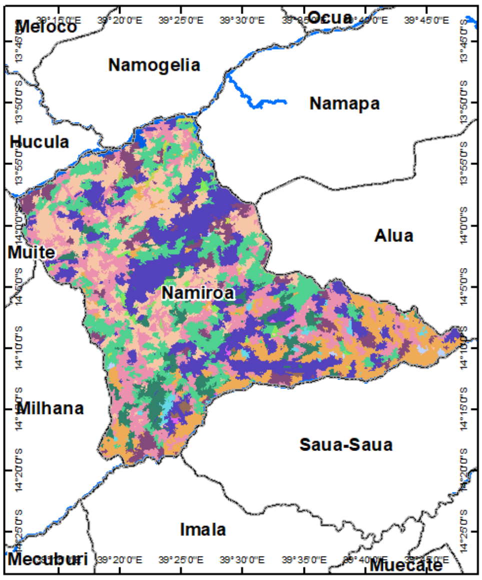
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namiroa	**Erati**	**Nampula**

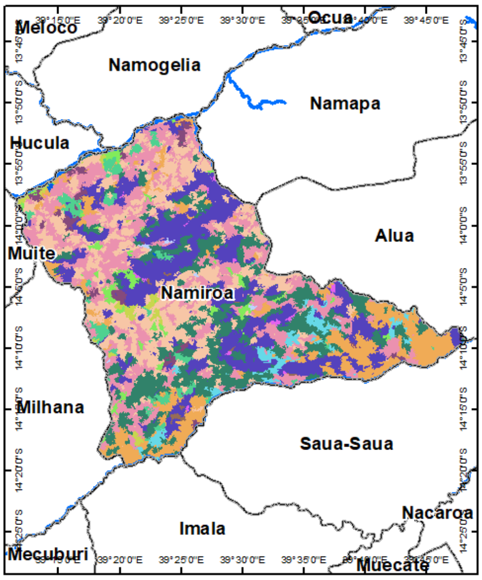
Total population	70852
Total area (sq km)	1528


N
0
12.5
25
50
Kilometers

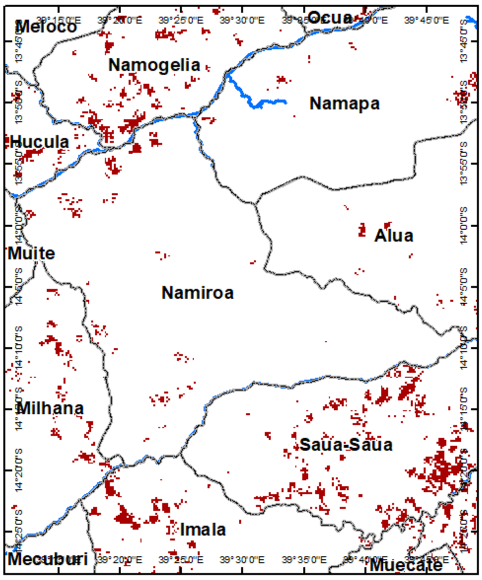
Land cover 2016


Meloco
Ocua
Namogelia
Namapa
Hucula
Alua
Muite
Namiroa
Milhana
Saua-Saua
Imala
Mecuburi
Muecate

Land cover 2021


Meloco
Ocua
Namogelia
Namapa
Hucula
Alua
Muite
Namiroa
Milhana
Saua-Saua
Nacaroa
Imala
Mecuburi
Muecate

Drought in 2021


Meloco
Ocua
Namogelia
Namapa
Hucula
Alua
Muite
Namiroa
Milhana
Saua-Saua
Imala
Mecuburi
Muecate

Forest area in 2016 (sq km)	210
Forest area in 2021 (sq km)	235
Net biomass change in Mg (2016 - 2021)	219989
Agricultural area in 2016 (sq km)	266
Agricultural area in 2021 (sq km)	44
Drought (% of agricultural area in 2021)	42

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Ilha De Moçambique

District

Ilha De Moçambique

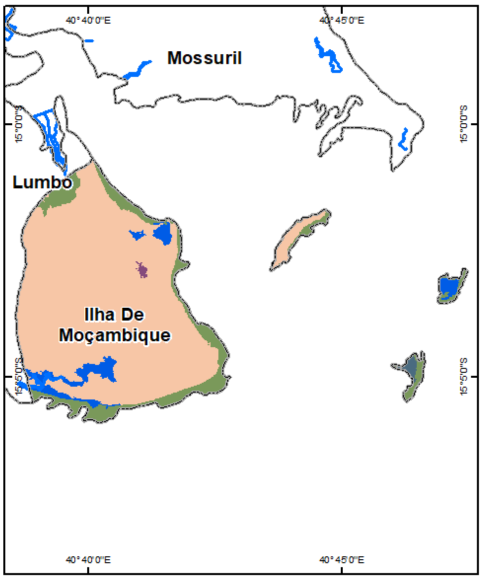
Province

Nampula

Total population	55006
Total area (sq km)	50

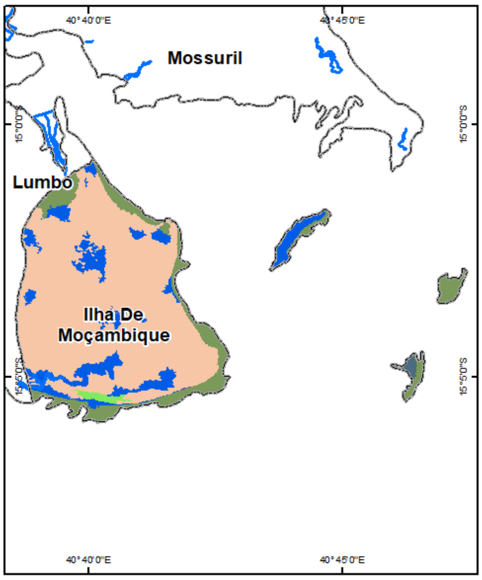
N

0 3 6 12
Kilometers



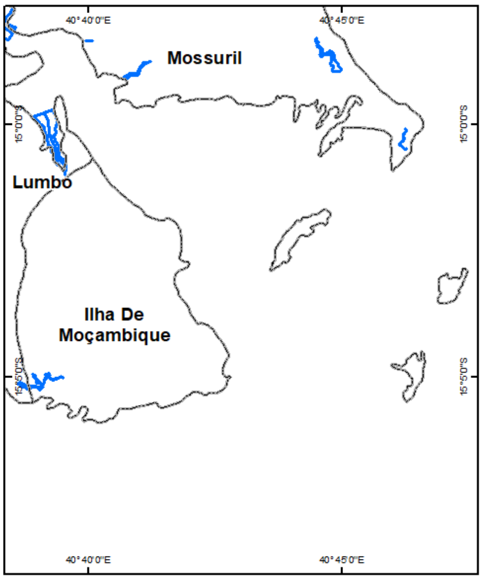
Land cover 2016

40°40'0"E
40°45'0"E
Mossuril
15°0'0"S
Lumbo
Ilha De Moçambique
15°5'0"S



Land cover 2021

40°40'0"E
40°45'0"E
Mossuril
15°0'0"S
Lumbo
Ilha De Moçambique
15°5'0"S



Drought in 2021

40°40'0"E
40°45'0"E
Mossuril
15°0'0"S
Lumbo
Ilha De Moçambique
15°5'0"S

Forest area in 2016 (sq km)	7
Forest area in 2021 (sq km)	8
Net biomass change in Mg (2016 - 2021)	5870
Agricultural area in 2016 (sq km)	0
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

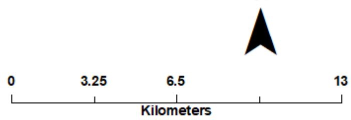
- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ■ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- ■ Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- ■ Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto
Lumbo

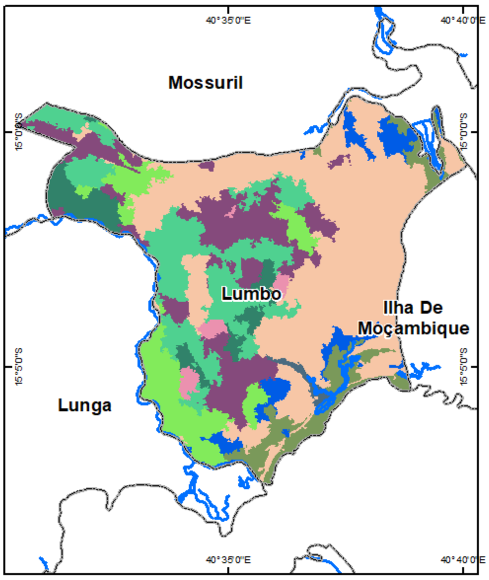
District
Ilha De Moçambique

Province
Nampula

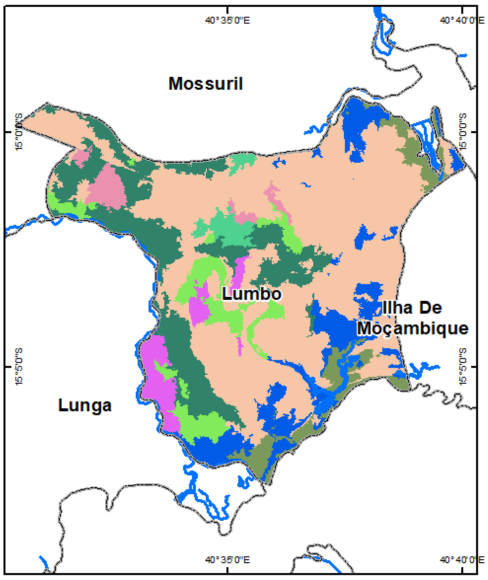

N
0
3.25
6.5
13
Kilometers

Total population	14795
Total area (sq km)	131

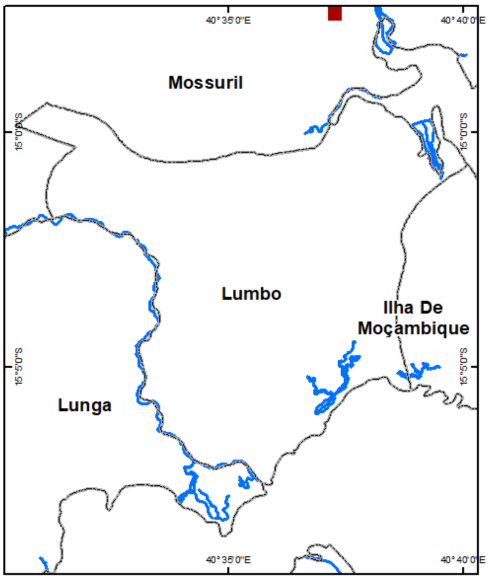
Land cover 2016


40°35'0"E
40°40'0"E
15°0'0"S
15°5'0"S
Mossuril
Lumbo
Ilha De Moçambique
Lunga

Land cover 2021


40°35'0"E
40°40'0"E
15°0'0"S
15°5'0"S
Mossuril
Lumbo
Ilha De Moçambique
Lunga

Drought in 2021


40°35'0"E
40°40'0"E
15°0'0"S
15°5'0"S
Mossuril
Lumbo
Ilha De Moçambique
Lunga

Forest area in 2016 (sq km)	10
Forest area in 2021 (sq km)	13
Net biomass change in Mg (2016 - 2021)	42424
Agricultural area in 2016 (sq km)	21
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	0

Legend

☐ Admin boundary (level 3)
— Waterways

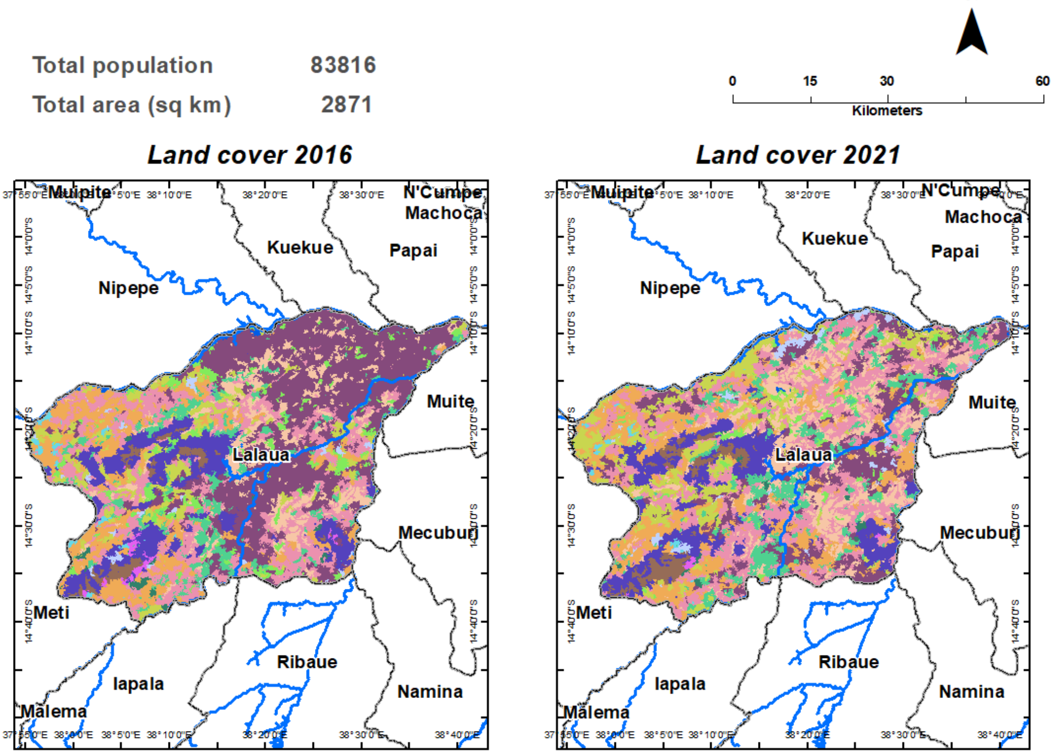
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

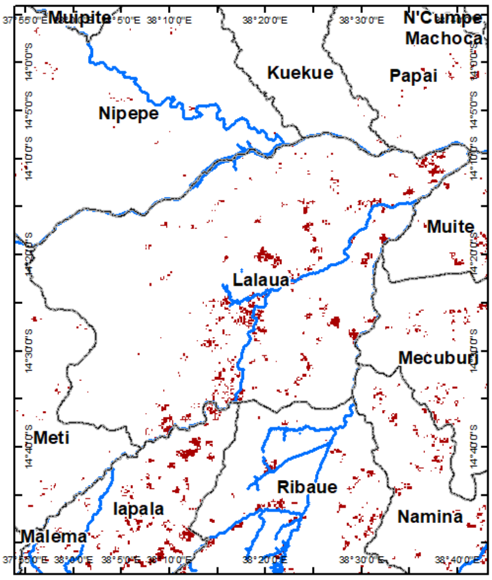
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Lalaua	**Lalaua**	**Nampula**

Total population	83816
Total area (sq km)	2871


N
0
15
30
60
Kilometers
Land cover 2016
Land cover 2021
Muipite
N'Cumpe
Machoca
Kuekue
Papai
Nipepe
Muite
Lalaua
Mecuburi
Meti
Ribaue
Iapala
Namina
Malema
37°55'0"E
38°5'0"E
38°10'0"E
38°20'0"E
38°30'0"E
38°40'0"E
14°0'0"S
14°5'0"S
14°10'0"S
14°20'0"S
14°30'0"S
14°40'0"S

Drought in 2021


Muipite
N'Cumpe
Machoca
Kuekue
Papai
Nipepe
Muite
Lalaua
Mecuburi
Meti
Ribaue
Iapala
Namina
Malema
37°55'0"E
38°5'0"E
38°10'0"E
38°20'0"E
38°30'0"E
38°40'0"E
14°0'0"S
14°5'0"S
14°10'0"S
14°20'0"S
14°30'0"S
14°40'0"S

Forest area in 2016 (sq km)	446
Forest area in 2021 (sq km)	538
Net biomass change in Mg (2016 - 2021)	943494
Agricultural area in 2016 (sq km)	176
Agricultural area in 2021 (sq km)	247
Drought (% of agricultural area in 2021)	42

Legend

☐	Admin boundary (level 3)	🟩	Mangrove
—	Waterways	■	Mecrusse
Land cover		🟫	Mountain forest
🟪	Bare ground	🟩	Non-tree cultivation
🟩	Flooded herbaceous area	🟨	Prairie
🟦	Forest deciduous closed	■	Prairie tree
🟧	Forest deciduous open	🟪	Rock without vegetation
🟪	Forest evergreen closed	🟩	Tree cultivation
■	Forest evergreen open	■	Urban area
🟥	Forest plantation	🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

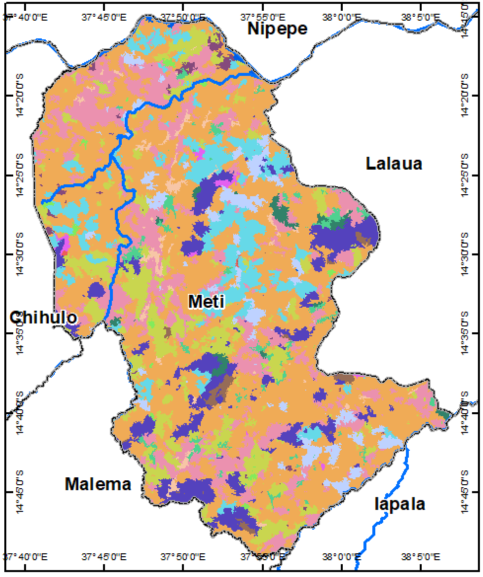
Posto	District	Province
Meti	**Lalaua**	**Nampula**

Total population	22607
Total area (sq km)	1660

N

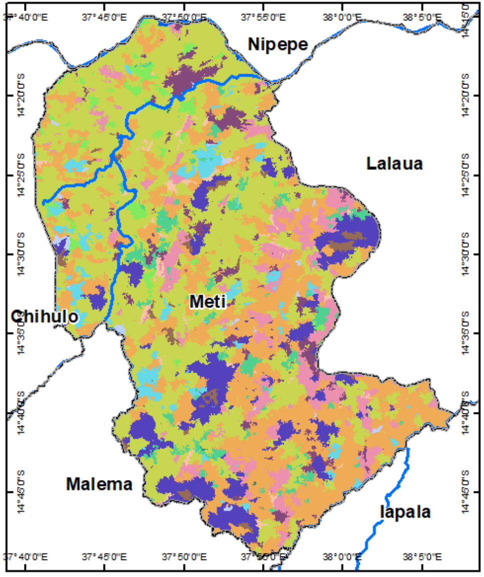
0 5 10 20
Kilometers

Land cover 2016



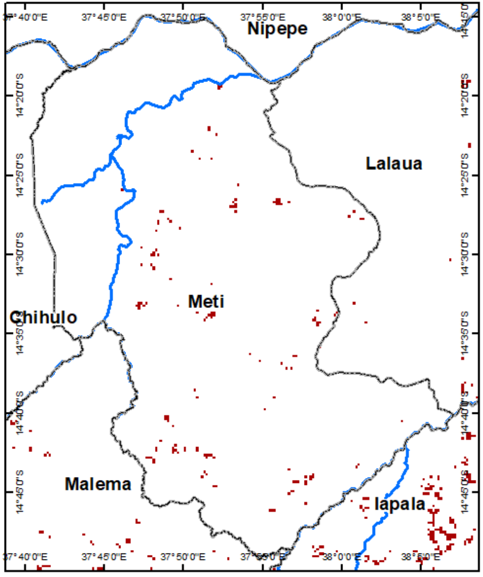
Nipepe
Lalaua
Meti
Chihulo
Malema
Iapala
37°40'0"E
37°45'0"E
37°50'0"E
37°55'0"E
38°0'0"E
38°5'0"E
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S

Land cover 2021



Nipepe
Lalaua
Meti
Chihulo
Malema
Iapala
37°40'0"E
37°45'0"E
37°50'0"E
37°55'0"E
38°0'0"E
38°5'0"E
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S

Drought in 2021



Nipepe
Lalaua
Meti
Chihulo
Malema
Iapala
37°40'0"E
37°45'0"E
37°50'0"E
37°55'0"E
38°0'0"E
38°5'0"E
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S

Forest area in 2016 (sq km)	998
Forest area in 2021 (sq km)	530
Net biomass change in Mg (2016 - 2021)	-4288200

Agricultural area in 2016 (sq km)	28
Agricultural area in 2021 (sq km)	52
Drought (% of agricultural area in 2021)	21

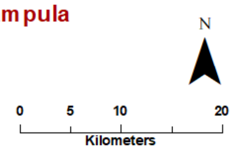
Legend

⬚ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

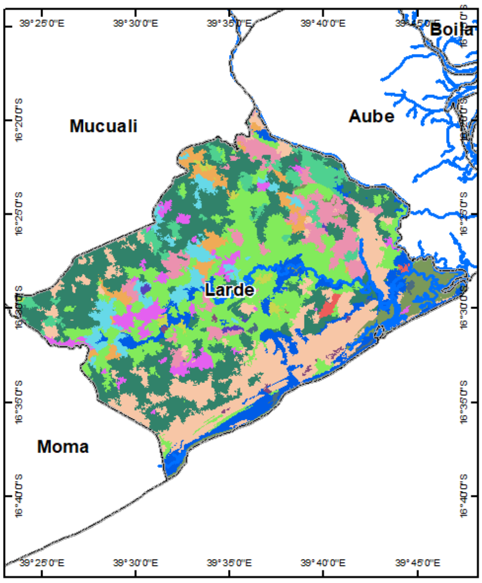
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Larde	**Larde**	**Nampula**

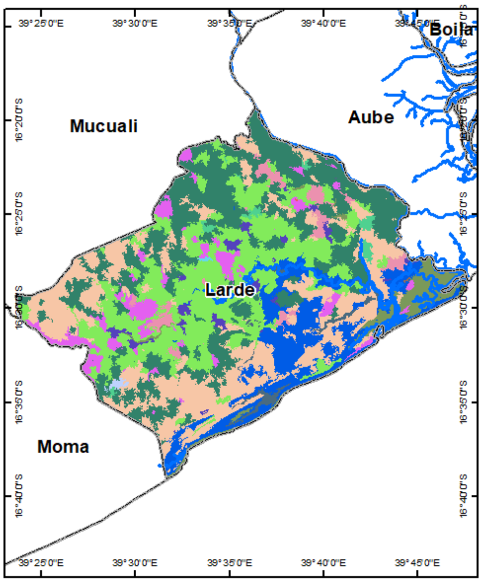
Total population	67011
Total area (sq km)	735


N
0
5
10
20
Kilometers

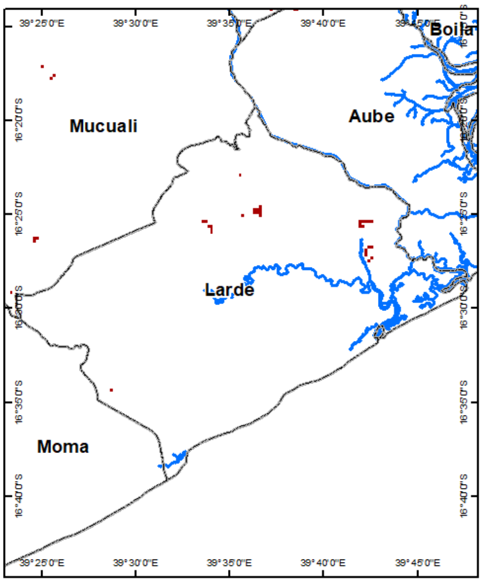
Land cover 2016


Mucuali
Aube
Boila
Larde
Moma
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
16°20'0"S
16°25'0"S
16°30'0"S
16°35'0"S
16°40'0"S

Land cover 2021


Mucuali
Aube
Boila
Larde
Moma
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
16°20'0"S
16°25'0"S
16°30'0"S
16°35'0"S
16°40'0"S

Drought in 2021


Mucuali
Aube
Boila
Larde
Moma
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
39°45'0"E
16°20'0"S
16°25'0"S
16°30'0"S
16°35'0"S
16°40'0"S

Forest area in 2016 (sq km)	119
Forest area in 2021 (sq km)	83
Net biomass change in Mg (2016 - 2021)	-259721
Agricultural area in 2016 (sq km)	29
Agricultural area in 2021 (sq km)	6
Drought (% of agricultural area in 2021)	38

Legend

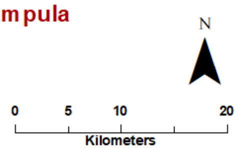
- ▭ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

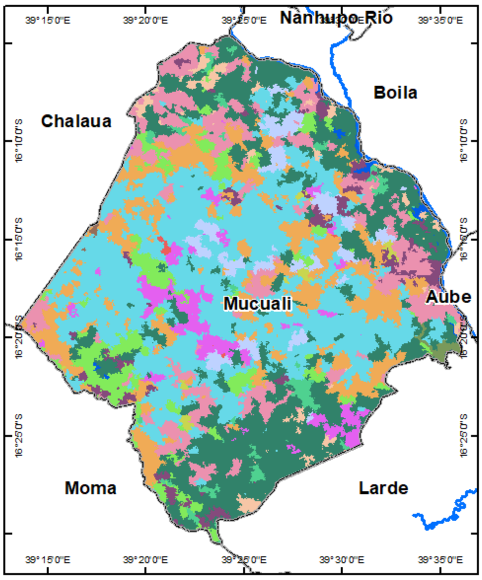
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mucuali	**Larde**	**Nampula**

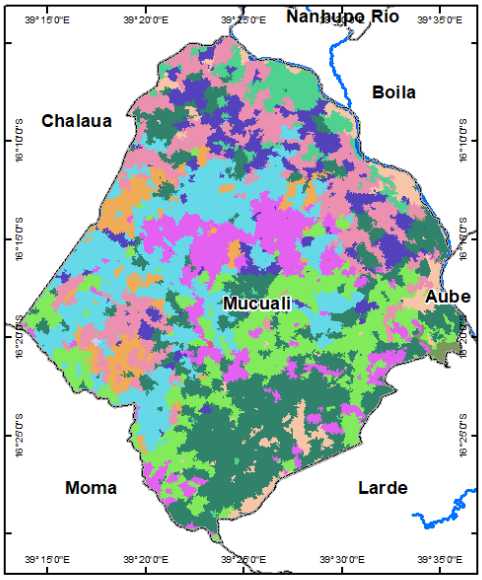

N
0
5
10
20
Kilometers

Total population	42875
Total area (sq km)	1109

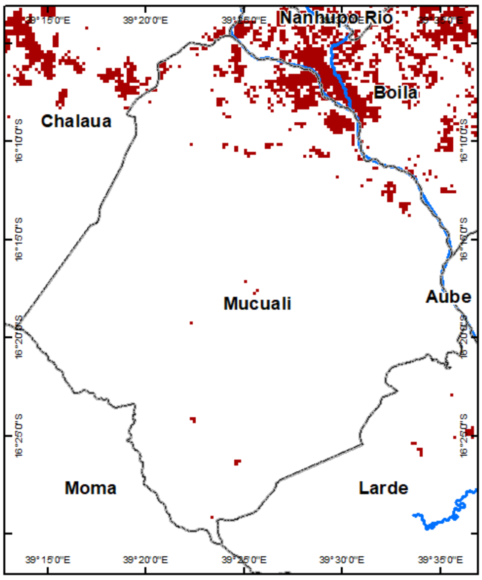
Land cover 2016


Nanhupo Rio
Boila
Chalaua
Mucuali
Aube
Moma
Larde
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S

Land cover 2021


Nanhupo Rio
Boila
Chalaua
Mucuali
Aube
Moma
Larde
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S

Drought in 2021


Nanhupo Rio
Boila
Chalaua
Mucuali
Aube
Moma
Larde
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
16°10'0"S
16°15'0"S
16°20'0"S
16°25'0"S

Forest area in 2016 (sq km)	574
Forest area in 2021 (sq km)	364
Net biomass change in Mg (2016 - 2021)	-1692450
Agricultural area in 2016 (sq km)	20
Agricultural area in 2021 (sq km)	45
Drought (% of agricultural area in 2021)	69

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

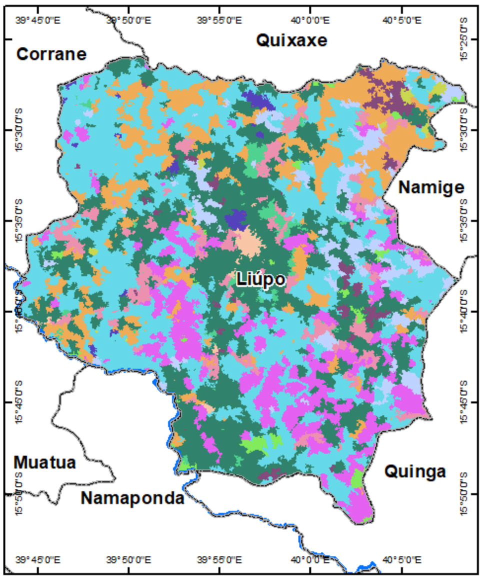
Posto	District	Province
Liúpo	**Liúpo**	**Nampula**

Total population	**51659**
Total area (sq km)	**1363**

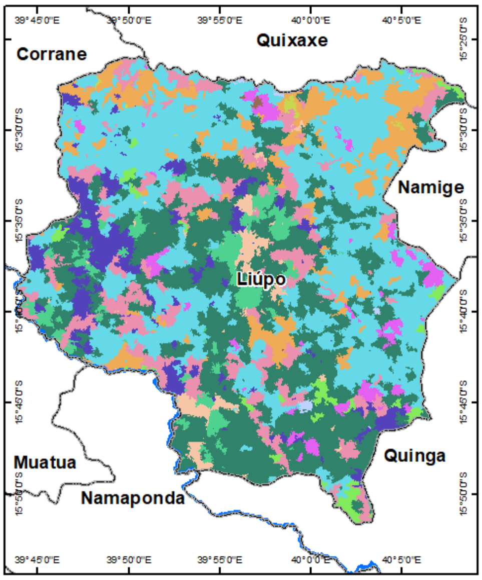
N

0 5 10 20
Kilometers

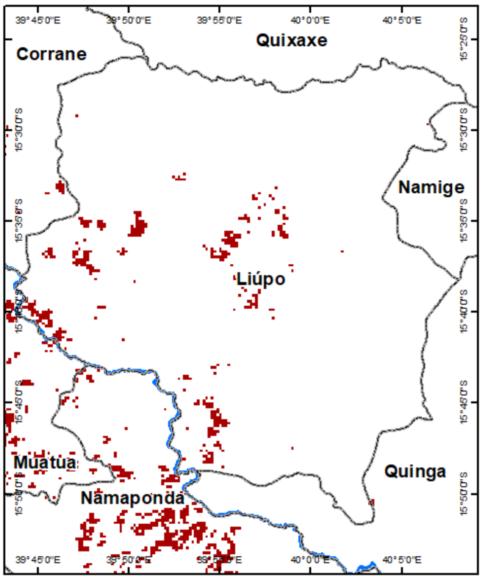
Land cover 2016


39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
15°25'0"S
15°30'0"S
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
Corrane
Quixaxe
Namige
Liúpo
Muatua
Namaponda
Quinga

Land cover 2021


39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
15°25'0"S
15°30'0"S
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
Corrane
Quixaxe
Namige
Liúpo
Muatua
Namaponda
Quinga

Drought in 2021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15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
Corrane
Quixaxe
Namige
Liúpo
Muatua
Namaponda
Quinga

Forest area in 2016 (sq km)	**854**
Forest area in 2021 (sq km)	**626**
Net biomass change in Mg (2016 - 2021)	**-2789967**
Agricultural area in 2016 (sq km)	**18**
Agricultural area in 2021 (sq km)	**59**
Drought (% of agricultural area in 2021)	**50**

Legend

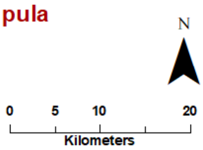
☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

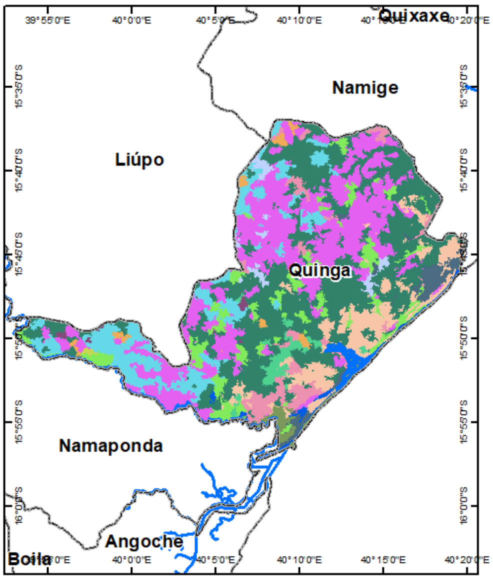
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Quinga	**Liúpo**	**Nampula**


N
0
5
10
20
Kilometers

Total population	135307
Total area (sq km)	758

Land cover 2016


Quixaxe
Namige
Liúpo
Quinga
Namaponda
Angoche
Boila
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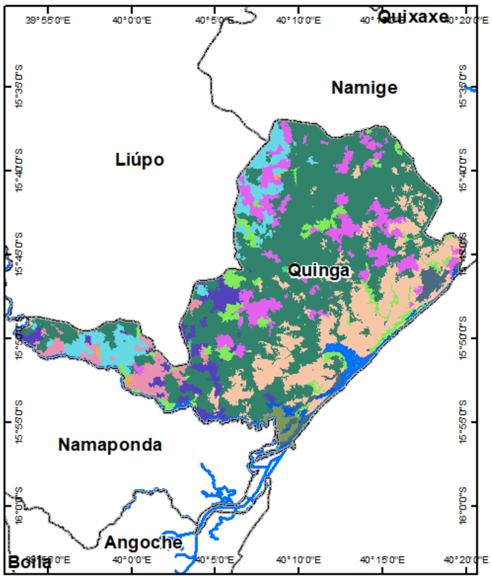
40°15'0"E
40°20'0"E
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S

Land cover 2021


Quixaxe
Namige
Liúpo
Quinga
Namaponda
Angoche
Boila
39°55'0"E
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40°20'0"E
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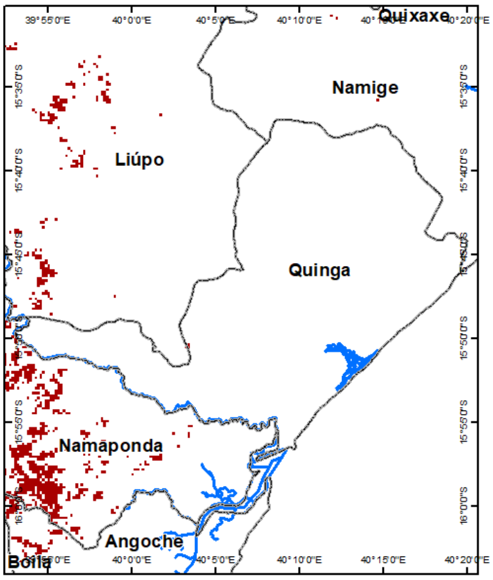
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S

Drought in 2021


Quixaxe
Namige
Liúpo
Quinga
Namaponda
Angoche
Boila
39°55'0"E
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40°5'0"E
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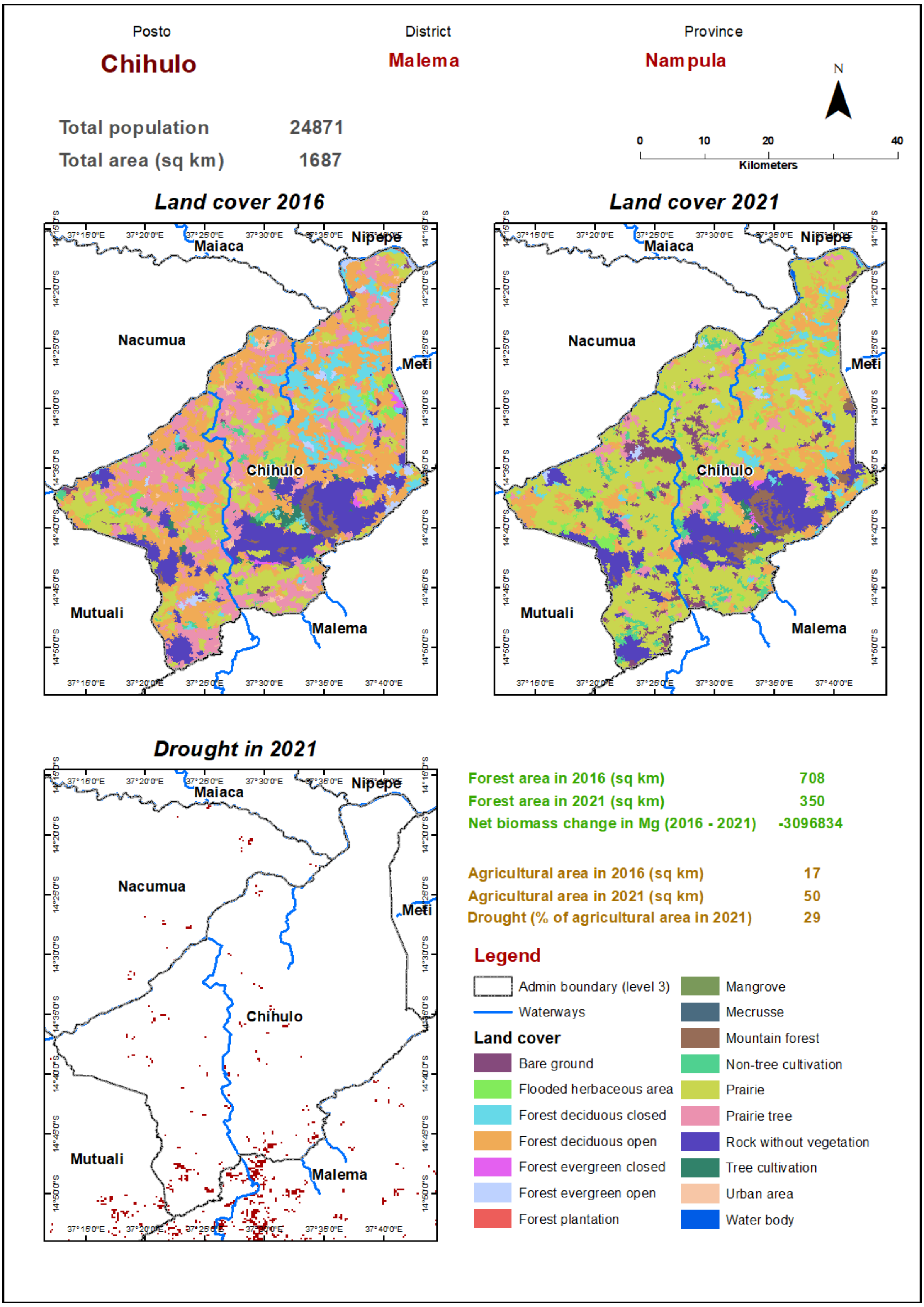
40°15'0"E
40°20'0"E
15°35'0"S
15°40'0"S
15°45'0"S
15°50'0"S
15°55'0"S
16°0'0"S

Forest area in 2016 (sq km)	332
Forest area in 2021 (sq km)	153
Net biomass change in Mg (2016 - 2021)	-2137478
Agricultural area in 2016 (sq km)	14
Agricultural area in 2021 (sq km)	1
Drought (% of agricultural area in 2021)	23

Legend

☐	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Land cover 2016
Land cover 2021
Drought in 2021
N
0
10
20
40
Kilometers
Maiaca
Nipepe
Nacumua
Meti
Chihulo
Mutuali
Malema
37°15'0"E
37°20'0"E
37°25'0"E
37°30'0"E
37°35'0"E
37°40'0"E
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
Legend
Admin boundary (level 3)
Waterways
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

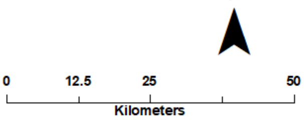
Posto	District	Province
Chihulo	**Malema**	**Nampula**

Total population	24871
Total area (sq km)	1687
Forest area in 2016 (sq km)	708
Forest area in 2021 (sq km)	350
Net biomass change in Mg (2016 - 2021)	-3096834
Agricultural area in 2016 (sq km)	17
Agricultural area in 2021 (sq km)	50
Drought (% of agricultural area in 2021)	29

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Malema	**Malema**	**Nampula**

Total population	136325
Total area (sq km)	2359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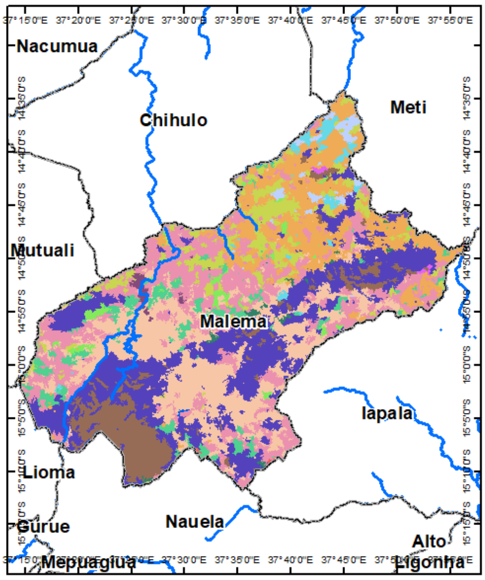
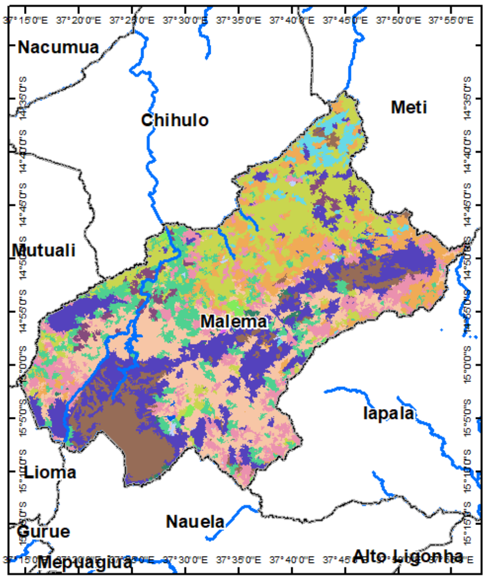
12.5
25
50
Kilometers

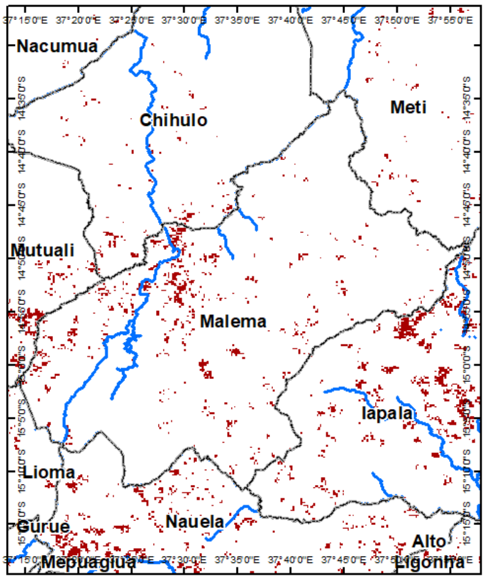
Land cover 2016


Nacumua
Chihulo
Meti
Mutuali
Malema
Iapala
Lioma
Gurue
Nauela
Alto Ligonha
Mepuagiua

Land cover 2021


Nacumua
Chihulo
Meti
Mutuali
Malema
Iapala
Lioma
Gurue
Nauela
Alto Ligonha
Mepuagiua

Drought in 2021


Nacumua
Chihulo
Meti
Mutuali
Malema
Iapala
Lioma
Gurue
Nauela
Alto Ligonha
Mepuagiua

Forest area in 2016 (sq km)	573
Forest area in 2021 (sq km)	511
Net biomass change in Mg (2016 - 2021)	-495130
Agricultural area in 2016 (sq km)	100
Agricultural area in 2021 (sq km)	230
Drought (% of agricultural area in 2021)	33

Legend

- ☐ Admin boundary (level 3)
- — Waterways

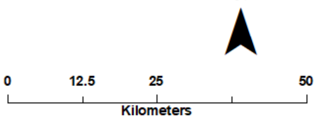
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

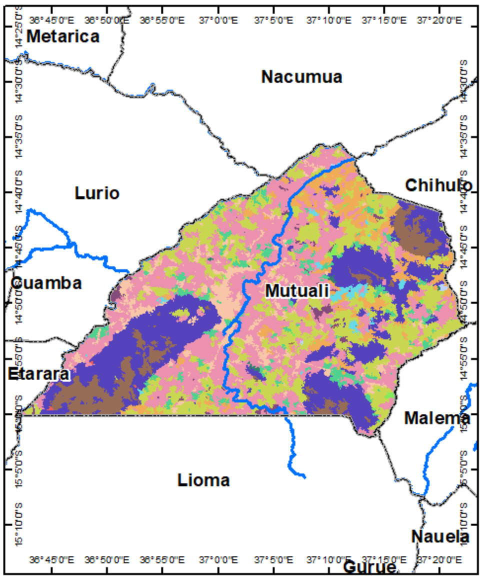
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mutuali	**Malema**	**Nampula**

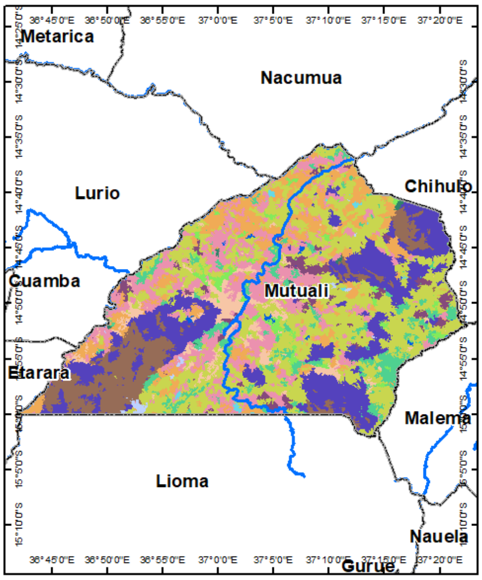
Total population	70820
Total area (sq km)	2007


N
0
12.5
25
50
Kilometers

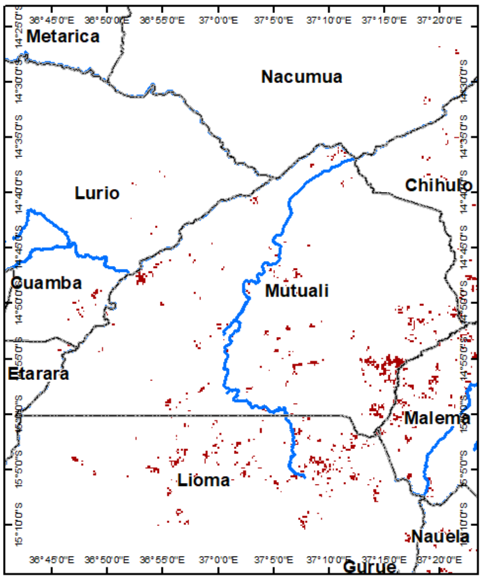
Land cover 2016


Metarica
Nacumua
Lurio
Chihulo
Cuamba
Mutuali
Etarara
Malema
Lioma
Nauela
Gurue

Land cover 2021


Metarica
Nacumua
Lurio
Chihulo
Cuamba
Mutuali
Etarara
Malema
Lioma
Nauela
Gurue

Drought in 2021


Metarica
Nacumua
Lurio
Chihulo
Cuamba
Mutuali
Etarara
Malema
Lioma
Nauela
Gurue

Forest area in 2016 (sq km)	296
Forest area in 2021 (sq km)	424
Net biomass change in Mg (2016 - 2021)	1358456

Agricultural area in 2016 (sq km)	88
Agricultural area in 2021 (sq km)	120
Drought (% of agricultural area in 2021)	32

Legend

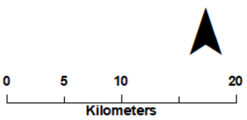
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

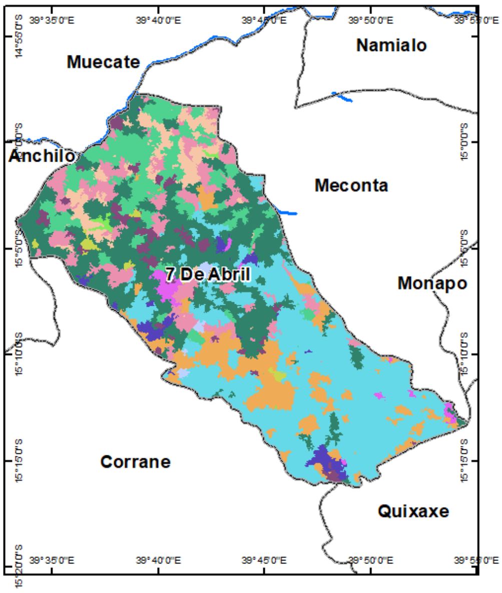
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
7 De Abril	**Meconta**	**Nampula**


N
0
5
10
20
Kilometers

Total population	46567
Total area (sq km)	553

Land cover 2016


Muecate
Namialo
Anchilo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°35'0"E
39°40'0"E
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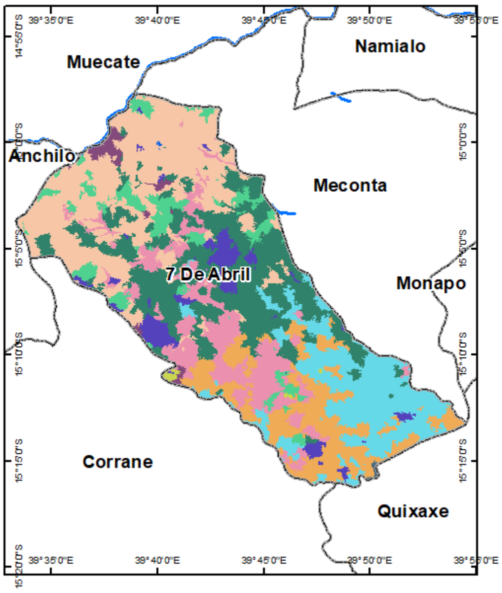
39°50'0"E
39°55'0"E
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S

Land cover 2021


Muecate
Namialo
Anchilo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°35'0"E
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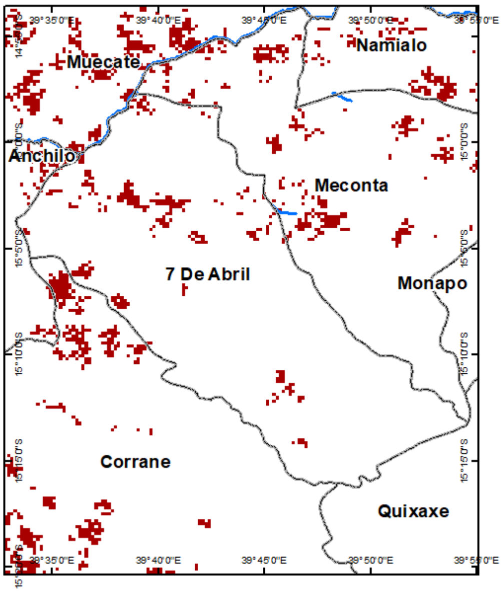
39°45'0"E
39°50'0"E
39°55'0"E
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S

Drought in 2021


Muecate
Namialo
Anchilo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°35'0"E
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S

Forest area in 2016 (sq km)	245
Forest area in 2021 (sq km)	151
Net biomass change in Mg (2016 - 2021)	-859917
Agricultural area in 2016 (sq km)	60
Agricultural area in 2021 (sq km)	35
Drought (% of agricultural area in 2021)	60

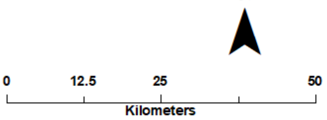
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	■ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	■ Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
■ Forest evergreen open	■ Urban area
🟥 Forest plantation	🟦 Water body

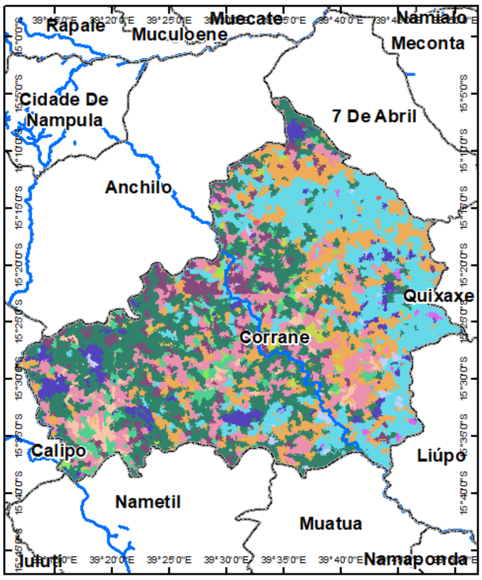
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Corrane	**Meconta**	**Nampula**

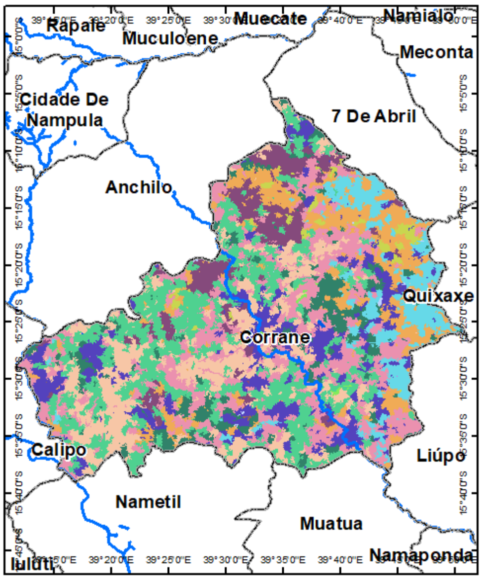
Total population	72163
Total area (sq km)	2317


N
0
12.5
25
50
Kilometers

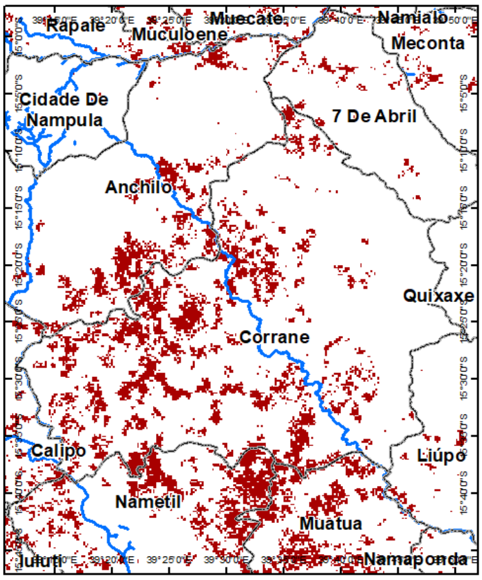
Land cover 2016


Rapale
Muculoene
Muecate
Namialo
Meconta
Cidade De Nampula
7 De Abril
Anchilo
Quixaxe
Corrane
Calipo
Liúpo
Nametil
Muatua
Iuluti
Namaponda

Land cover 2021


Rapale
Muculoene
Muecate
Namialo
Meconta
Cidade De Nampula
7 De Abril
Anchilo
Quixaxe
Corrane
Calipo
Liúpo
Nametil
Muatua
Iuluti
Namaponda

Drought in 2021


Rapale
Muculoene
Muecate
Namialo
Meconta
Cidade De Nampula
7 De Abril
Anchilo
Quixaxe
Corrane
Calipo
Liúpo
Nametil
Muatua
Iuluti
Namaponda

Forest area in 2016 (sq km)	924
Forest area in 2021 (sq km)	422
Net biomass change in Mg (2016 - 2021)	-4488415

Agricultural area in 2016 (sq km)	90
Agricultural area in 2021 (sq km)	483
Drought (% of agricultural area in 2021)	74

Legend

- ☐ Admin boundary (level 3)
- — Waterways

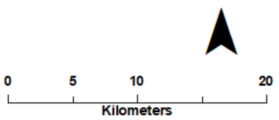
Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Meconta	**Meconta**	**Nampula**

Total population	18287
Total area (sq km)	460


N
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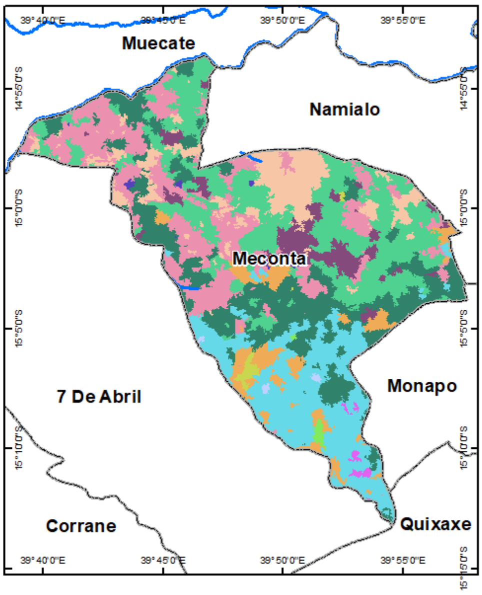
Kilometers


Land cover 2016
Muecate
Namialo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°40'0"E
39°45'0"E
39°50'0"E
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14°55'0"S
15°0'0"S
15°5'0"S
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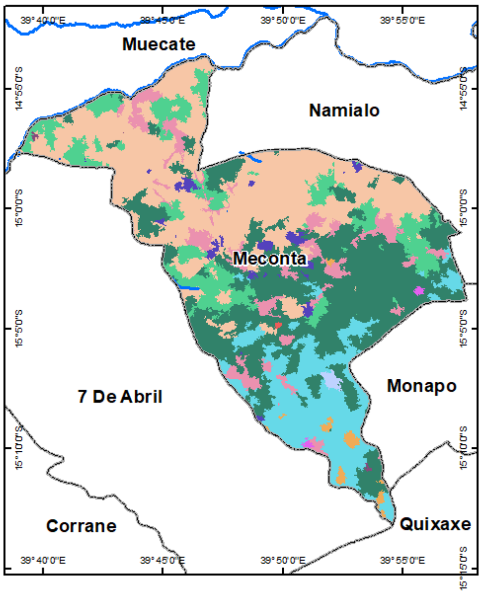
Land cover 2021
Muecate
Namialo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°40'0"E
39°45'0"E
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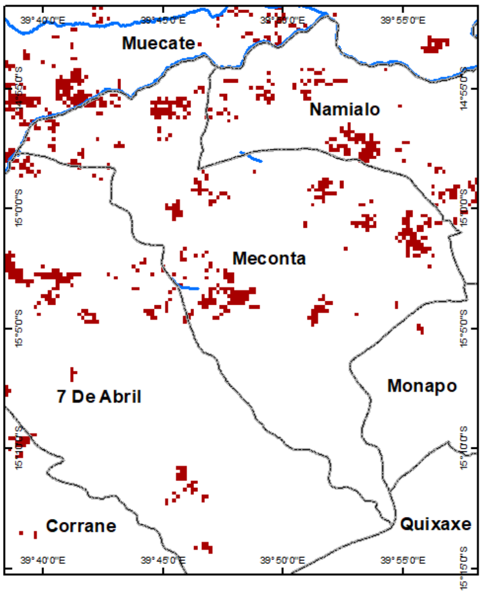
15°10'0"S
15°15'0"S


Drought in 2021
Muecate
Namialo
Meconta
7 De Abril
Monapo
Corrane
Quixaxe
39°40'0"E
39°45'0"E
39°50'0"E
39°55'0"E
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S

Forest area in 2016 (sq km)	102
Forest area in 2021 (sq km)	69
Net biomass change in Mg (2016 - 2021)	-287417

Agricultural area in 2016 (sq km)	115
Agricultural area in 2021 (sq km)	55
Drought (% of agricultural area in 2021)	50

Legend

☐ Admin boundary (level 3)
─ Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
⬜ Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

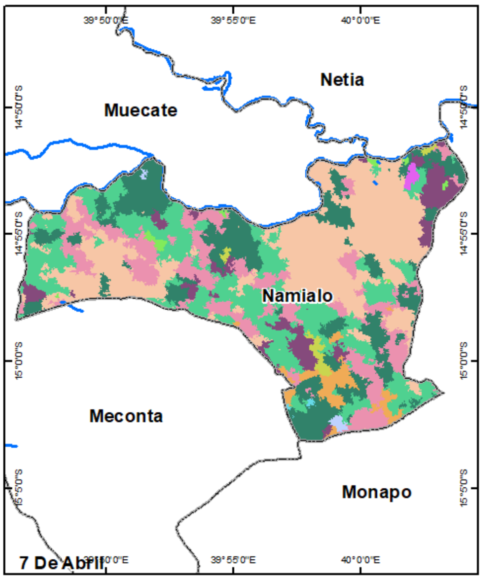
Posto	District	Province
Namialo	**Meconta**	**Nampula**

Total population	77355
Total area (sq km)	348

N

0 5 10 20
Kilometers

Land cover 2016


39°50'0"E
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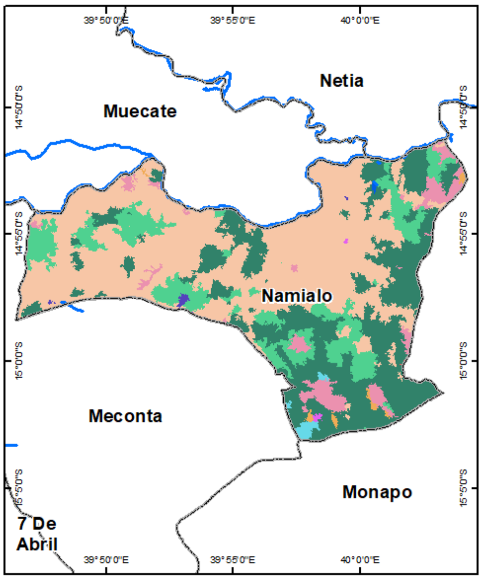
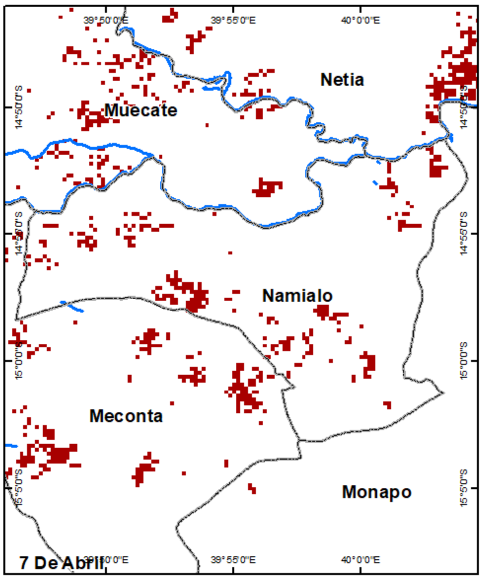
40°0'0"E
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
Netia
Muecate
Namialo
Meconta
Monapo
7 De Abril

Land cover 2021


39°50'0"E
39°55'0"E
40°0'0"E
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
Netia
Muecate
Namialo
Meconta
Monapo
7 De Abril

Drought in 2021


39°50'0"E
39°55'0"E
40°0'0"E
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
Netia
Muecate
Namialo
Meconta
Monapo
7 De Abril

Forest area in 2016 (sq km)	13
Forest area in 2021 (sq km)	4
Net biomass change in Mg (2016 - 2021)	-83961
Agricultural area in 2016 (sq km)	81
Agricultural area in 2021 (sq km)	50
Drought (% of agricultural area in 2021)	39

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

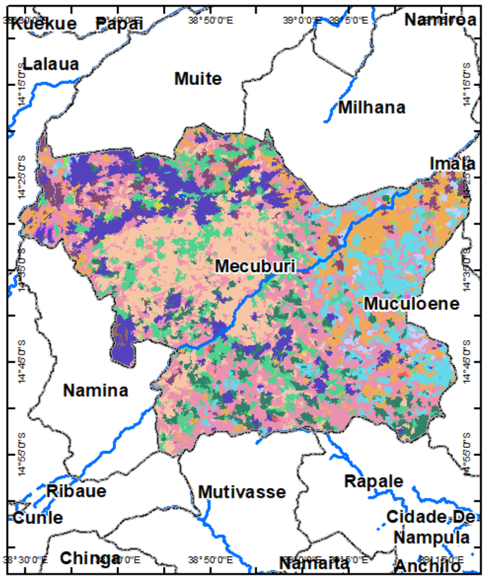
🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

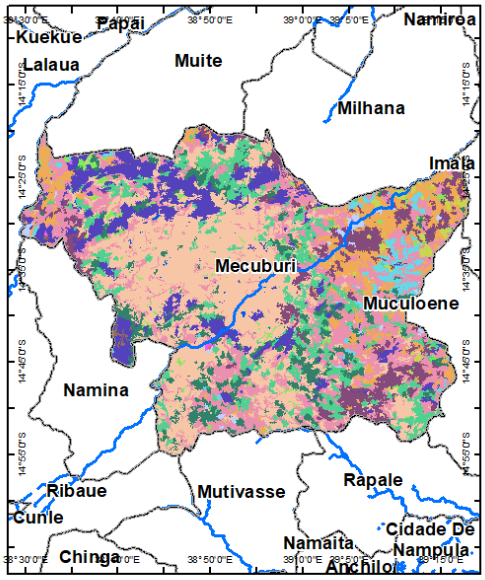
Posto	District	Province
Mecuburi	**Mecuburi**	**Nampula**

Total population	108127
Total area (sq km)	3641

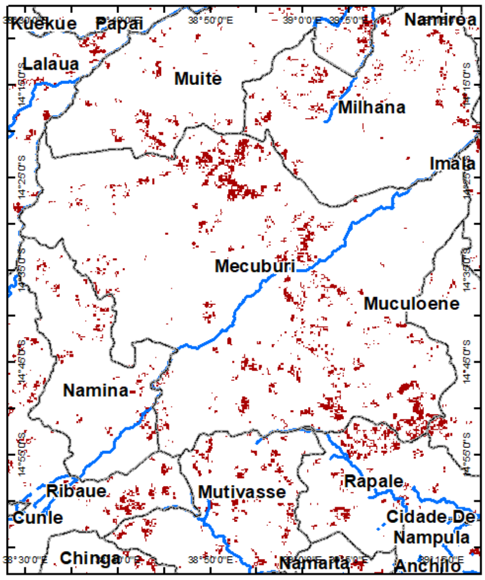
Land cover 2016


Kuekue
Papai
Namirea
Lalaua
Muite
Milhana
Imala
Mecuburi
Muculoene
Namina
Ribaue
Cunle
Mutivasse
Rapale
Cidade De Nampula
Chinga
Namaita
Anchilo
N
0
15
30
60
Kilometers

Land cover 2021


Kuekue
Papai
Namirea
Lalaua
Muite
Milhana
Imala
Mecuburi
Muculoene
Namina
Ribaue
Cunle
Mutivasse
Rapale
Namaita
Cidade De Nampula
Chinga
Anchilo

Drought in 2021


Kuekue
Papai
Namirea
Lalaua
Muite
Milhana
Imala
Mecuburi
Muculoene
Namina
Ribaue
Cunle
Mutivasse
Rapale
Cidade De Nampula
Chinga
Namaita
Anchilo

Forest area in 2016 (sq km)	812
Forest area in 2021 (sq km)	404
Net biomass change in Mg (2016 - 2021)	-3738432
Agricultural area in 2016 (sq km)	381
Agricultural area in 2021 (sq km)	369
Drought (% of agricultural area in 2021)	54

Legend

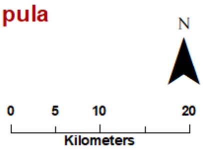
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

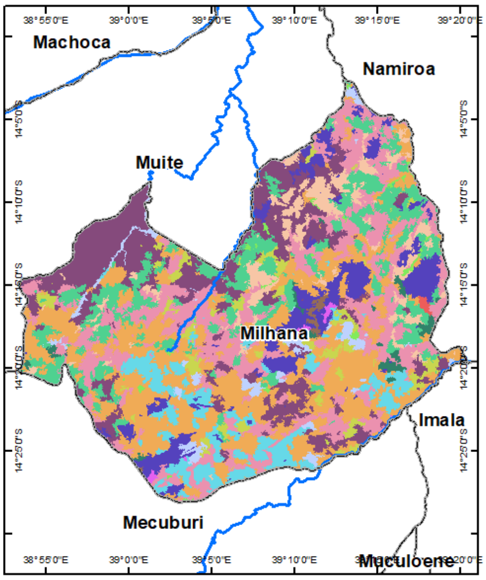
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Milhana	**Mecuburi**	**Nampula**

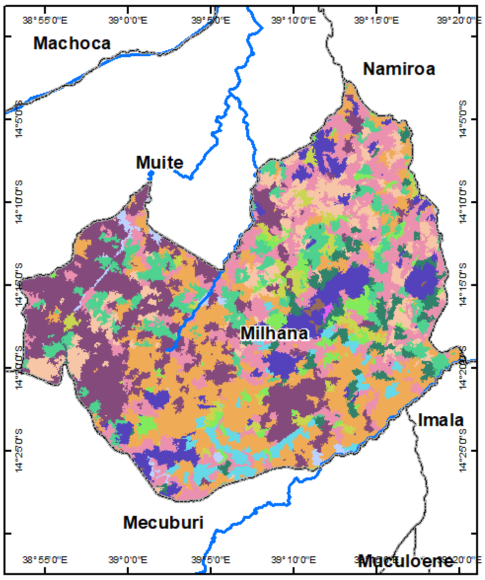

N
0
5
10
20
Kilometers

Total population	19929
Total area (sq km)	1275

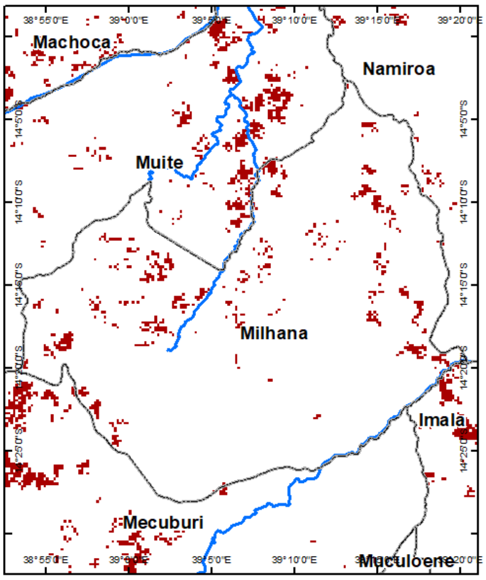
Land cover 2016


Machoca
Namiroa
Muite
Milhana
Imala
Mecuburi
Maculoene

Land cover 2021


Machoca
Namiroa
Muite
Milhana
Imala
Mecuburi
Maculoene

Drought in 2021


Machoca
Namiroa
Muite
Milhana
Imala
Mecuburi
Maculoene

Forest area in 2016 (sq km)	423
Forest area in 2021 (sq km)	328
Net biomass change in Mg (2016 - 2021)	-902132
Agricultural area in 2016 (sq km)	163
Agricultural area in 2021 (sq km)	110
Drought (% of agricultural area in 2021)	47

Legend

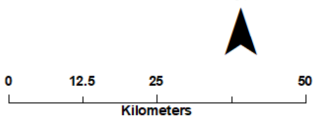
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

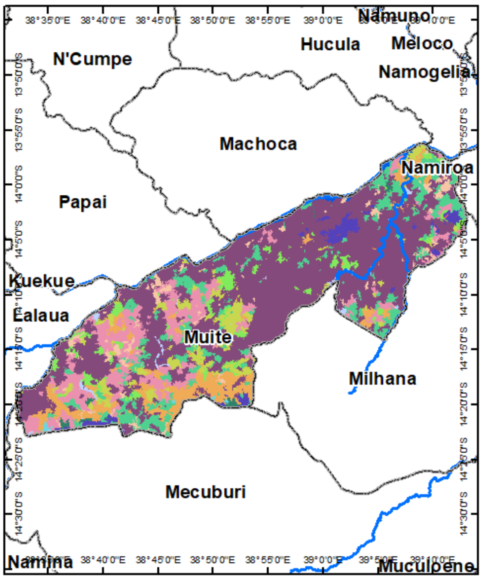
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Muite	**Mecuburi**	**Nampula**

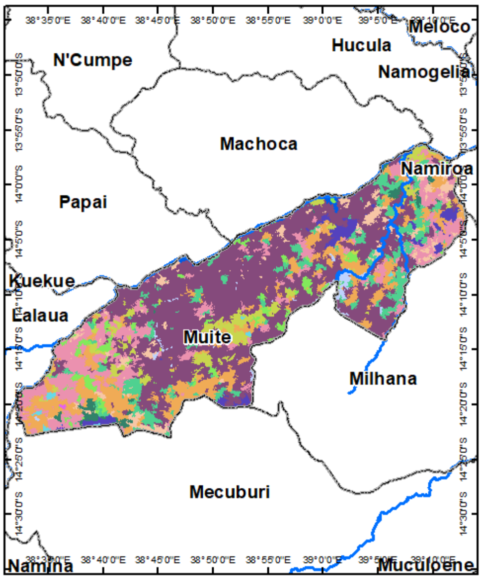

N
0
12.5
25
50
Kilometers

Total population	48841
Total area (sq km)	1498

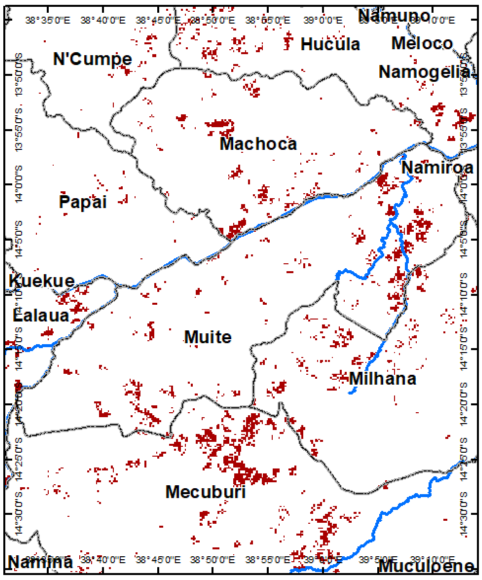
Land cover 2016


Namuno
Hucula
Meloco
N'Cumpe
Namogelia
Machoca
Namiroa
Papai
Kuekue
Ealaua
Muite
Milhana
Mecuburi
Namina
Muculpene

Land cover 2021


Hucula
Meloco
N'Cumpe
Namogelia
Machoca
Namiroa
Papai
Kuekue
Ealaua
Muite
Milhana
Mecuburi
Namina
Muculpene

Drought in 2021


Namuno
Hucula
Meloco
N'Cumpe
Namogelia
Machoca
Namiroa
Papai
Kuekue
Ealaua
Muite
Milhana
Mecuburi
Namina
Muculpene

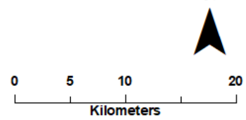
Forest area in 2016 (sq km)	135
Forest area in 2021 (sq km)	243
Net biomass change in Mg (2016 - 2021)	977216
Agricultural area in 2016 (sq km)	173
Agricultural area in 2021 (sq km)	128
Drought (% of agricultural area in 2021)	54

Legend

☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

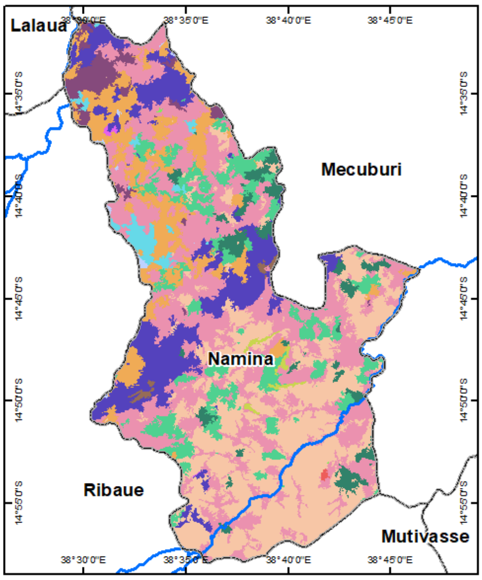
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namina	**Mecuburi**	**Nampula**

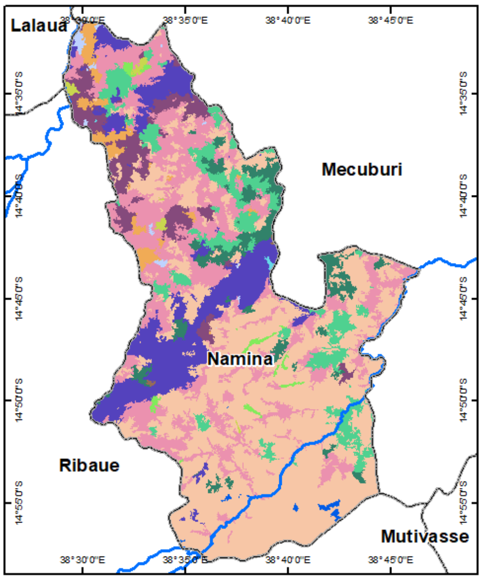

N
0
5
10
20
Kilometers

Total population	50003
Total area (sq km)	776

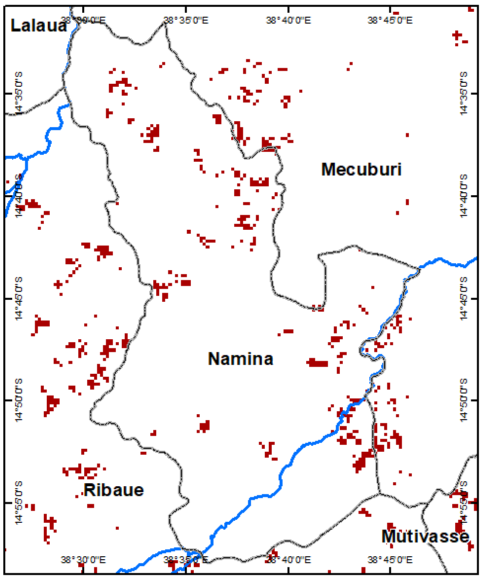
Land cover 2016


Lalaua
Mecuburi
Namina
Ribaue
Mutivasse
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Land cover 2021


Lalaua
Mecuburi
Namina
Ribaue
Mutivasse
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Drought in 2021


Lalaua
Mecuburi
Namina
Ribaue
Mutivasse
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Forest area in 2016 (sq km)	98
Forest area in 2021 (sq km)	22
Net biomass change in Mg (2016 - 2021)	-659033

Agricultural area in 2016 (sq km)	75
Agricultural area in 2021 (sq km)	62
Drought (% of agricultural area in 2021)	40

Legend

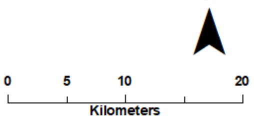
- ⬚ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

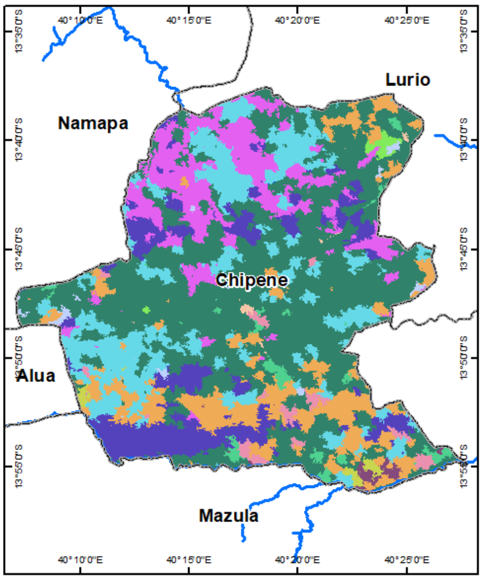
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Chipene	**Memba**	**Nampula**

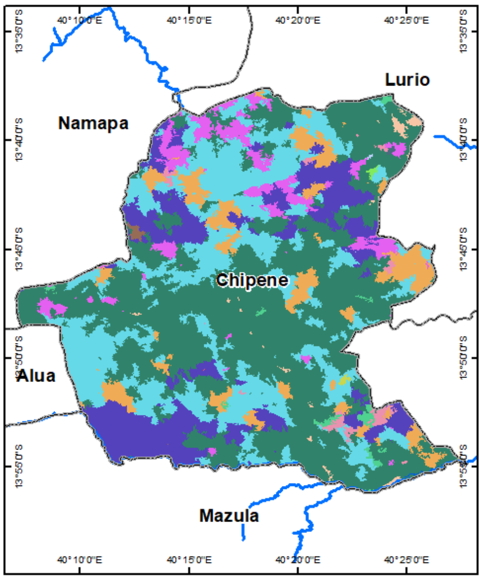

N
0
5
10
20
Kilometers

Total population	**56891**
Total area (sq km)	**784**

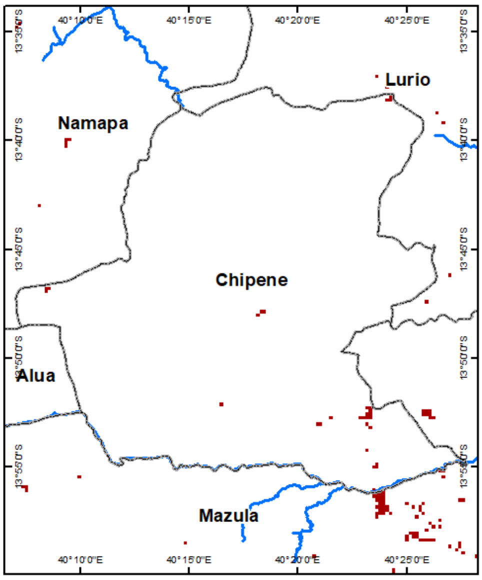
Land cover 2016


Namapa
Lurio
Chipene
Alua
Mazula
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Land cover 2021


Namapa
Lurio
Chipene
Alua
Mazula
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Drought in 2021


Namapa
Lurio
Chipene
Alua
Mazula
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
13°35'0"S
13°40'0"S
13°45'0"S
13°50'0"S
13°55'0"S

Forest area in 2016 (sq km)	311
Forest area in 2021 (sq km)	296
Net biomass change in Mg (2016 - 2021)	-353818
Agricultural area in 2016 (sq km)	12
Agricultural area in 2021 (sq km)	5
Drought (% of agricultural area in 2021)	45

Legend

▭ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

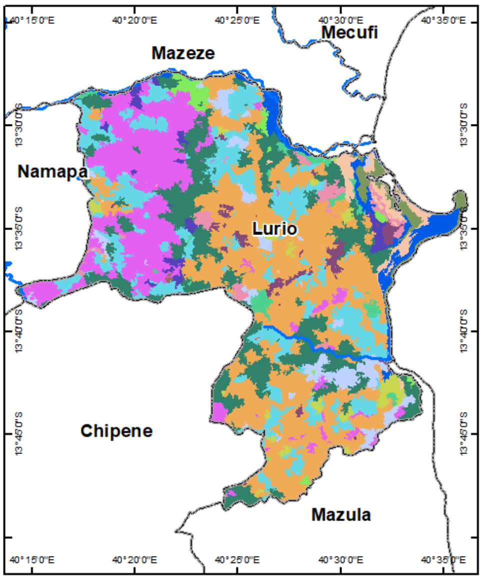
Posto
Lurio

District
Memba

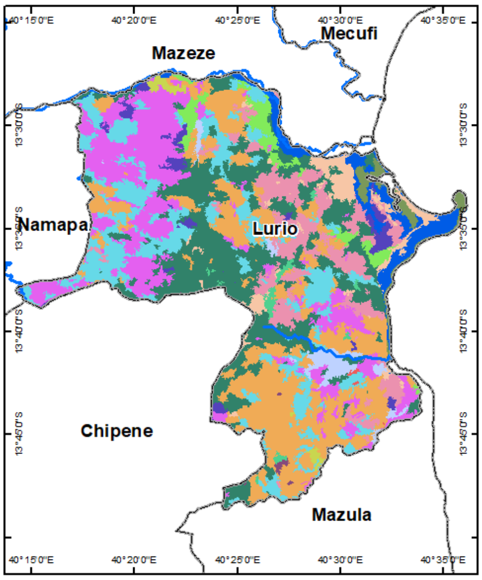
Province
Nampula

Total population 15764
Total area (sq km) 711

Land cover 2016


40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
Mecufi
Mazeze
13°30'0"S
Namapa
13°35'0"S
Lurio
13°40'0"S
13°45'0"S
Chipene
Mazula

Land cover 2021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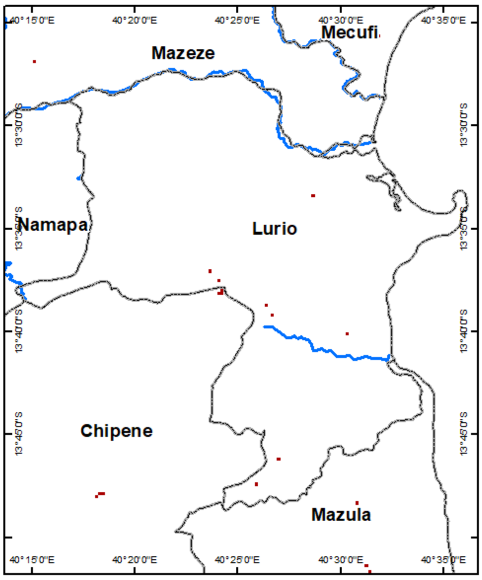
40°35'0"E
Mecufi
Mazeze
13°30'0"S
Namapa
13°35'0"S
Lurio
13°40'0"S
13°45'0"S
Chipene
Mazula

Drought in 2021


40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
Mecufi
Mazeze
13°30'0"S
Namapa
13°35'0"S
Lurio
13°40'0"S
13°45'0"S
Chipene
Mazula

Forest area in 2016 (sq km)	482
Forest area in 2021 (sq km)	404
Net biomass change in Mg (2016 - 2021)	-715924
Agricultural area in 2016 (sq km)	11
Agricultural area in 2021 (sq km)	5
Drought (% of agricultural area in 2021)	12

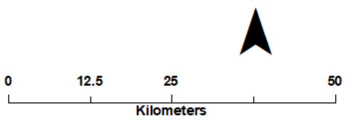
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

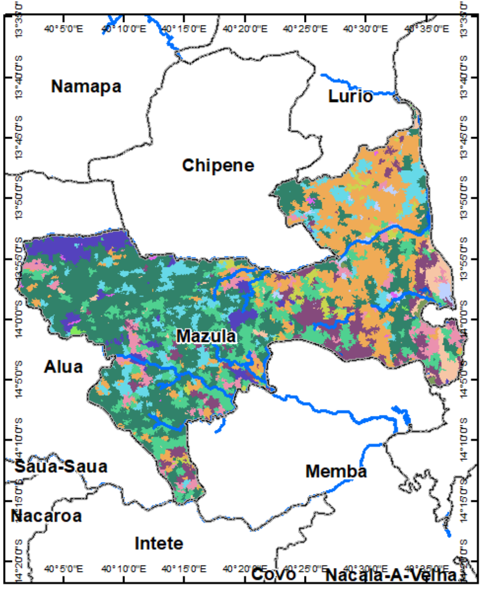
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mazula	**Memba**	**Nampula**

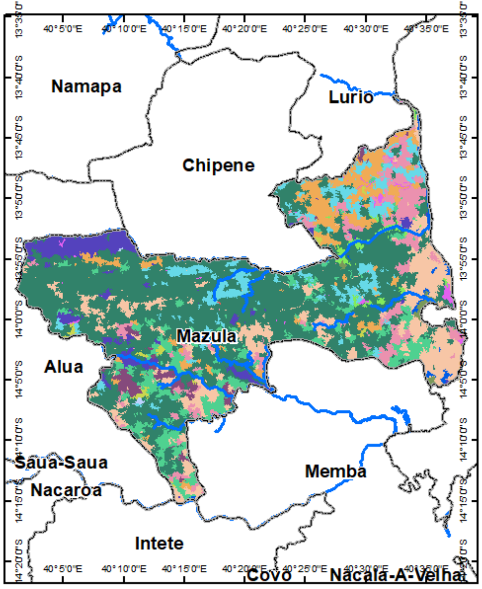
Total population	182390
Total area (sq km)	1570


N
0
12.5
25
50
Kilometers

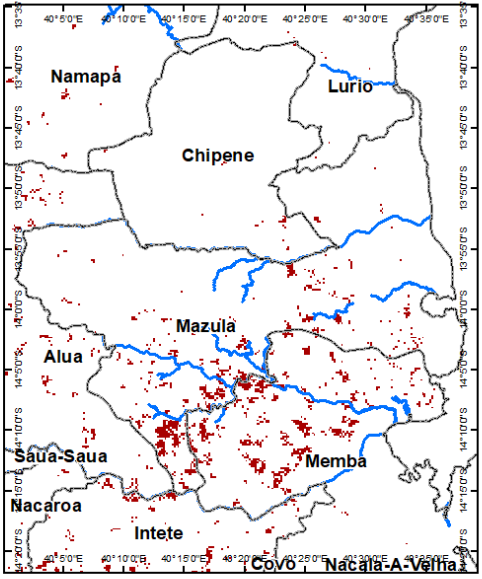
Land cover 2016


Namapa
Lurio
Chipene
Mazula
Alua
Saua-Saua
Nacaroa
Memba
Intete
Covo
Nacala-A-Velha

Land cover 2021


Namapa
Lurio
Chipene
Mazula
Alua
Saua-Saua
Nacaroa
Memba
Intete
Covo
Nacala-A-Velha

Drought in 2021


Namapa
Lurio
Chipene
Mazula
Alua
Saua-Saua
Nacaroa
Memba
Intete
Covo
Nacala-A-Velha

Forest area in 2016 (sq km)	467
Forest area in 2021 (sq km)	239
Net biomass change in Mg (2016 - 2021)	-2029372
Agricultural area in 2016 (sq km)	195
Agricultural area in 2021 (sq km)	134
Drought (% of agricultural area in 2021)	40

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
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- 🟫 Mountain forest
- 🟩 Non-tree cultivation
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- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

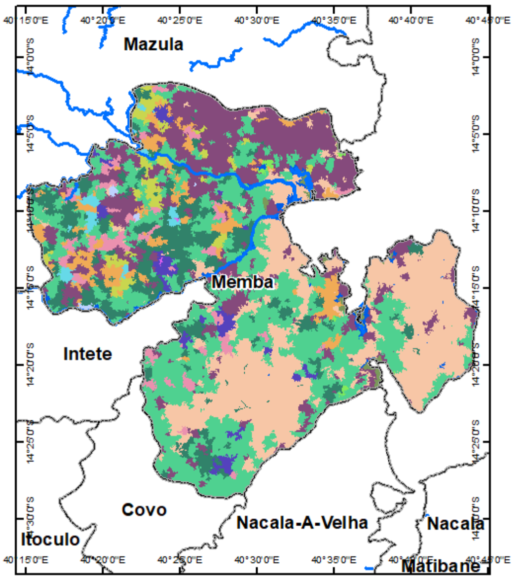
Posto	District	Province
Memba	**Memba**	**Nampula**

N

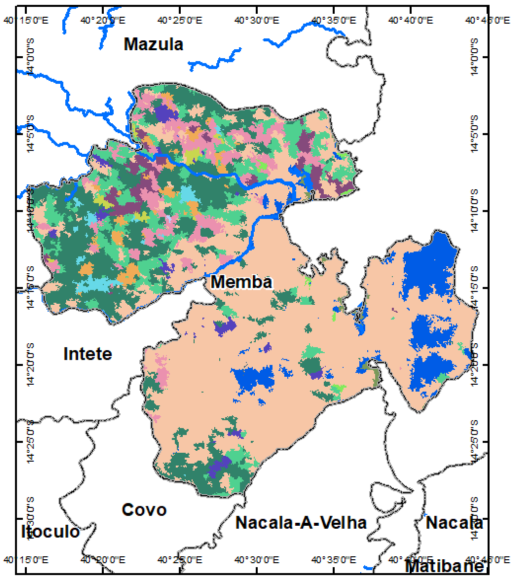
0 10 20 40
Kilometers

Total population	100259
Total area (sq km)	1385

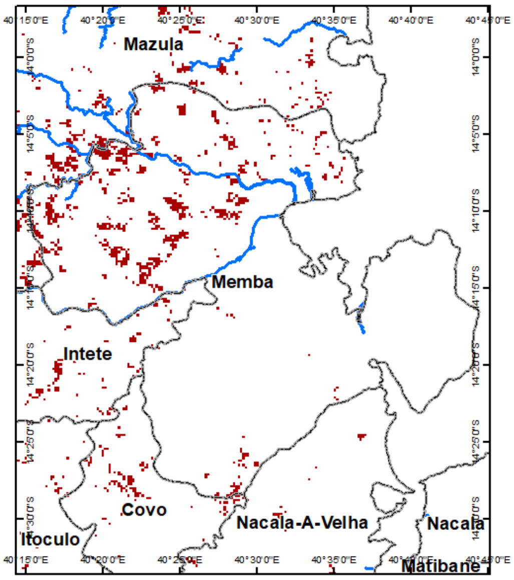
Land cover 2016


Mazula
Memba
Intete
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane

Land cover 2021


Mazula
Memba
Intete
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane

Drought in 2021


Mazula
Memba
Intete
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane

Forest area in 2016 (sq km)	102
Forest area in 2021 (sq km)	55
Net biomass change in Mg (2016 - 2021)	-419901
Agricultural area in 2016 (sq km)	401
Agricultural area in 2021 (sq km)	137
Drought (% of agricultural area in 2021)	46

Legend

☐ Admin boundary (level 3)	▨ Mangrove
— Waterways	▨ Mecrusse
Land cover	▨ Mountain forest
▨ Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	▨ Prairie
▨ Forest deciduous closed	▨ Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
▨ Forest evergreen closed	▨ Tree cultivation
▨ Forest evergreen open	▨ Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Namige

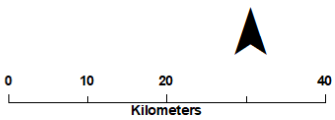
District

Mogincual

Province

Nampula

Total population	25796
Total area (sq km)	848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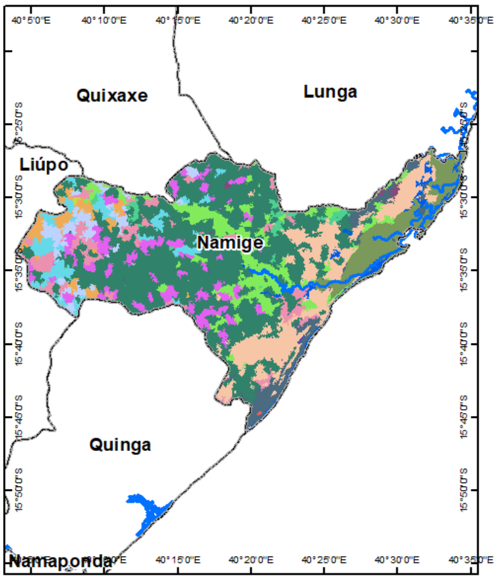
Kilometers

Land cover 2016


Quixaxe
Lunga
Liúpo
Namige
Quinga
Namaponda
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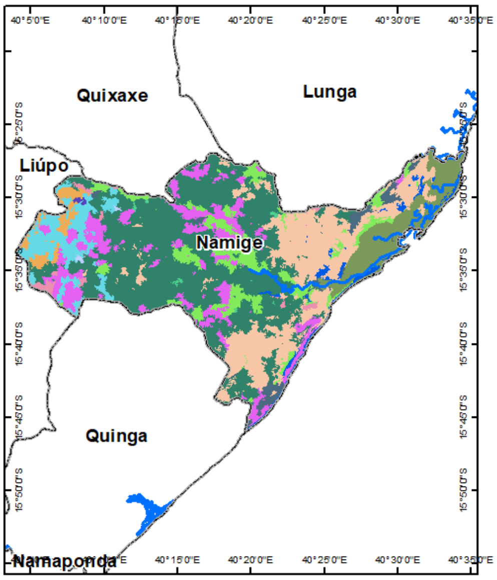
Land cover 2021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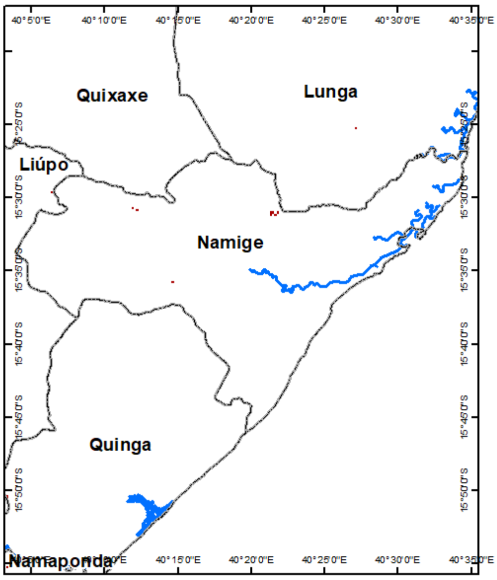
Drought in 2021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Forest area in 2016 (sq km)	245
Forest area in 2021 (sq km)	254
Net biomass change in Mg (2016 - 2021)	114920
Agricultural area in 2016 (sq km)	12
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	31

Legend

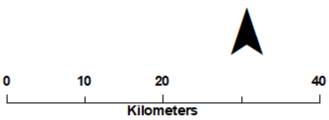
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ■ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Quixaxe	**Mogincual**	**Nampula**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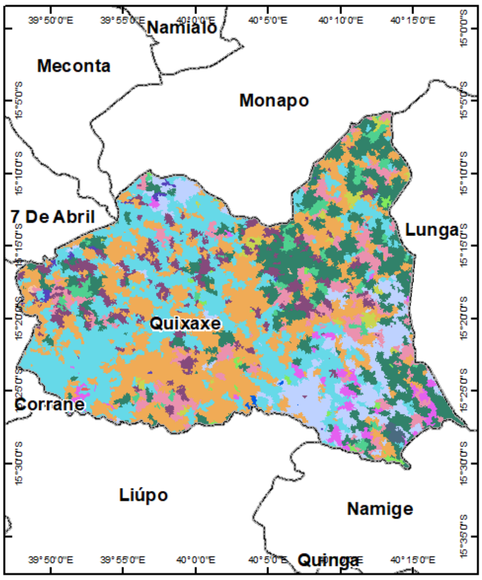
Kilometers

Total population	**28818**
Total area (sq km)	**1435**

Land cover 2016


Namialo
Meconta
Monapo
7 De Abril
Lunga
Quixaxe
Corrane
Liúpo
Namige
Quinga
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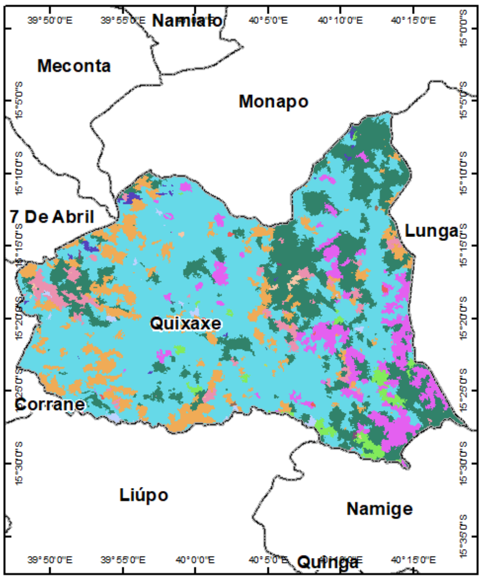
Land cover 2021


Namialo
Meconta
Monapo
7 De Abril
Lunga
Quixaxe
Corrane
Liúpo
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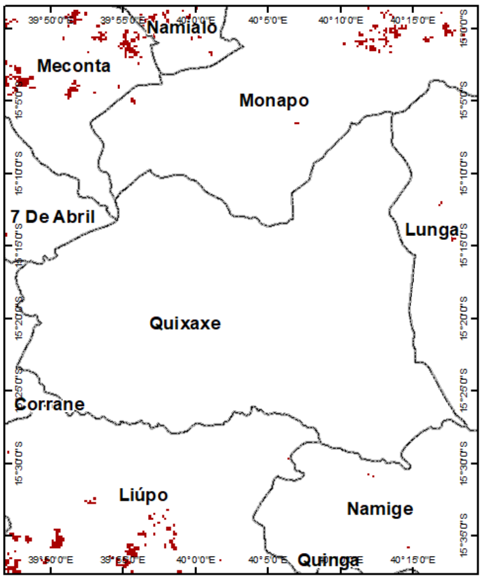
Drought in 2021


Namialo
Meconta
Monapo
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Quixaxe
Corrane
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15°35'0"S

Forest area in 2016 (sq km)	**925**
Forest area in 2021 (sq km)	**1054**
Net biomass change in Mg (2016 - 2021)	**967535**
Agricultural area in 2016 (sq km)	**36**
Agricultural area in 2021 (sq km)	**0**
Drought (% of agricultural area in 2021)	**0**

Legend

- ▭ Admin boundary (level 3)
- — Waterways

Land cover

■ Bare ground	■ Mangrove
■ Flooded herbaceous area	■ Mecrusse
■ Forest deciduous closed	■ Mountain forest
■ Forest deciduous open	■ Non-tree cultivation
■ Forest evergreen closed	■ Prairie
■ Forest evergreen open	■ Prairie tree
■ Forest plantation	■ Rock without vegetation
	■ Tree cultivation
	■ Urban area
	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

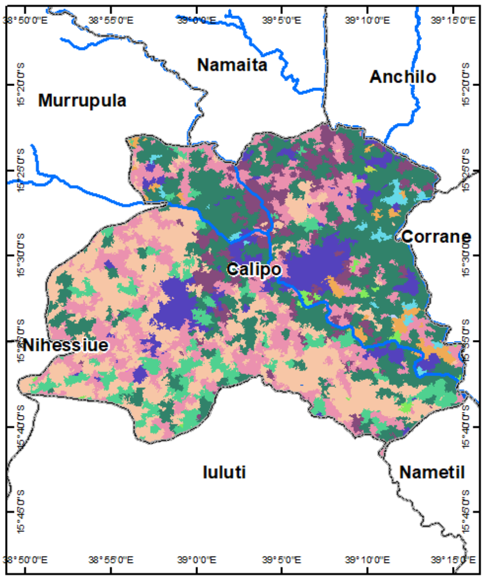
Posto	District	Province
Calipo	**Mogovolas**	**Nampula**

Total population	91973
Total area (sq km)	1085

N

0 5 10 20
Kilometers

Land cover 2016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Anchilo
Murrupula
Corrane
Calipo
Nihessiue
Iuluti
Nametil
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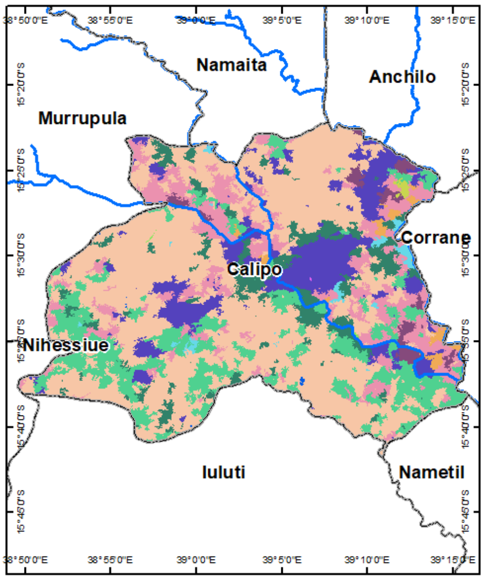
15°40'0"S
15°45'0"S

Land cover 2021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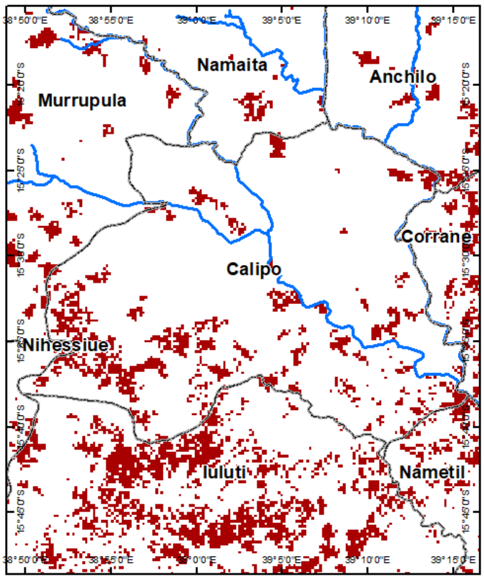
Drought in 2021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Anchilo
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Corrane
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Nihessiue
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39°15'0"E
15°20'0"S
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15°30'0"S
15°35'0"S
15°40'0"S
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Forest area in 2016 (sq km)	31
Forest area in 2021 (sq km)	22
Net biomass change in Mg (2016 - 2021)	-87947
Agricultural area in 2016 (sq km)	83
Agricultural area in 2021 (sq km)	169
Drought (% of agricultural area in 2021)	69

Legend

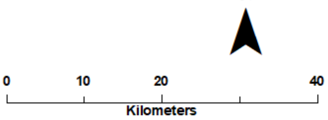
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Iuluti	**Mogovolas**	**Nampula**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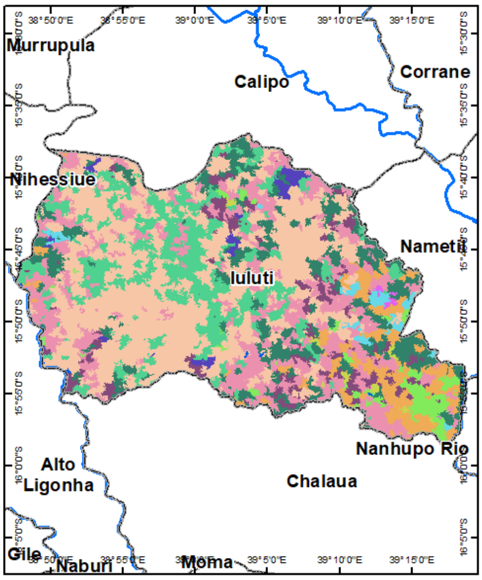
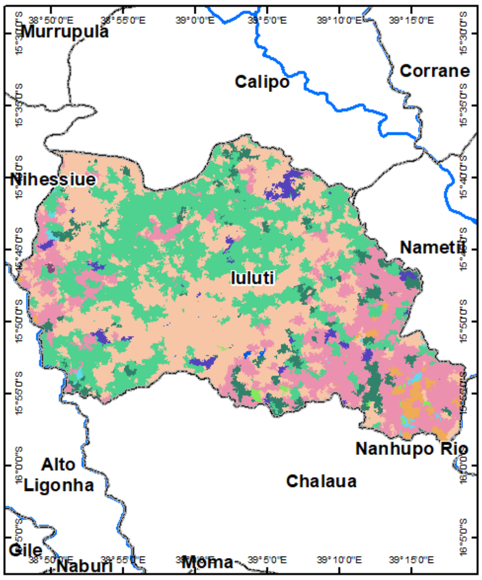
Kilometers

Total population	84815
Total area (sq km)	1390

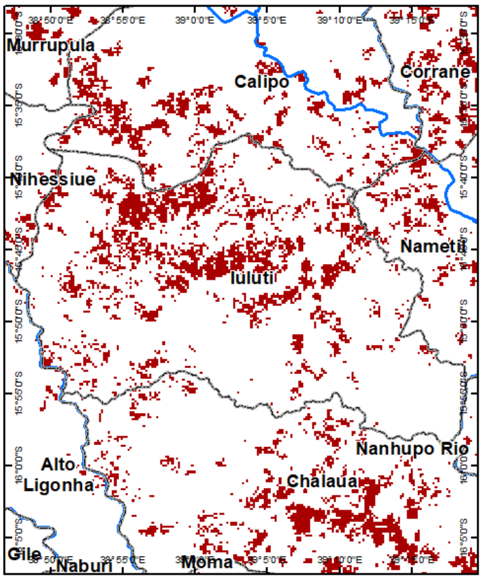
Land cover 2016


Murrupula
Calipo
Corrane
Nihessiue
Nametil
Iuluti
Nanhupo Rio
Alto Ligonha
Chalaua
Gile
Naburi
Moma

Land cover 2021


Murrupula
Calipo
Corrane
Nihessiue
Nametil
Iuluti
Nanhupo Rio
Alto Ligonha
Chalaua
Gile
Naburi
Moma

Drought in 2021


Murrupula
Calipo
Corrane
Nihessiue
Nametil
Iuluti
Nanhupo Rio
Alto Ligonha
Chalaua
Gile
Naburi
Moma

Forest area in 2016 (sq km)	108
Forest area in 2021 (sq km)	28
Net biomass change in Mg (2016 - 2021)	-704431
Agricultural area in 2016 (sq km)	223
Agricultural area in 2021 (sq km)	443
Drought (% of agricultural area in 2021)	52

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
🟦 Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

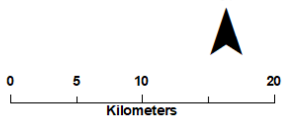
Muatua

District

Mogovolas

Province

Nampula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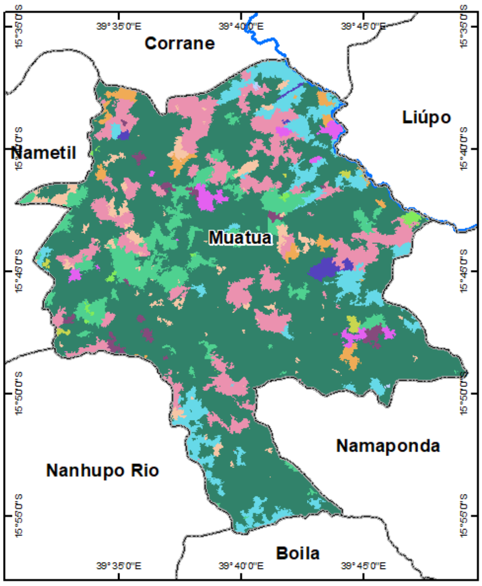
Kilometers

Total population	49681
Total area (sq km)	605

Land cover 2016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Namaponda
Nanhupo Rio
Boila
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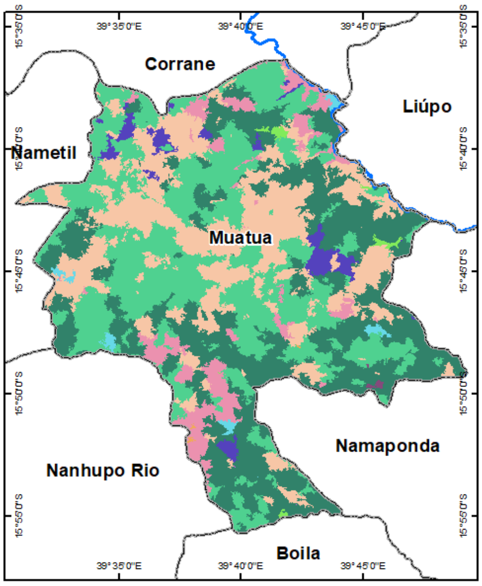
Land cover 2021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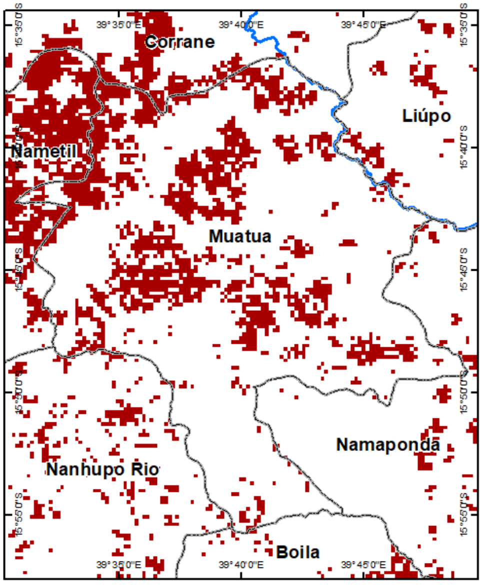
Drought in 2021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Forest area in 2016 (sq km)	65
Forest area in 2021 (sq km)	5
Net biomass change in Mg (2016 - 2021)	-553404
Agricultural area in 2016 (sq km)	45
Agricultural area in 2021 (sq km)	206
Drought (% of agricultural area in 2021)	67

Legend

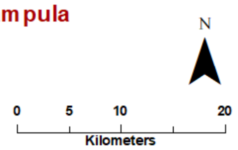
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nametil	**Mogovolas**	**Nampula**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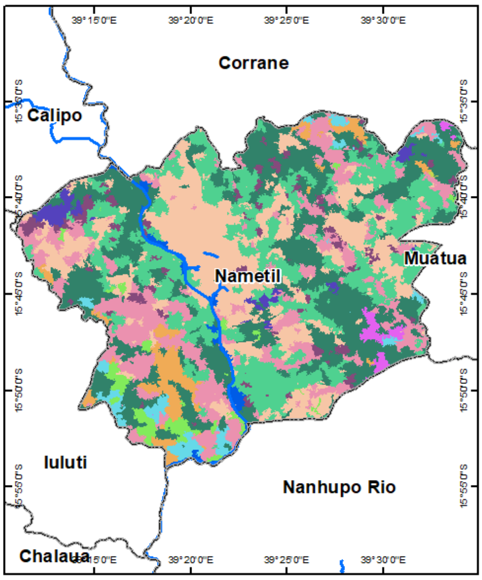
Kilometers

Total population	172972
Total area (sq km)	911

Land cover 2016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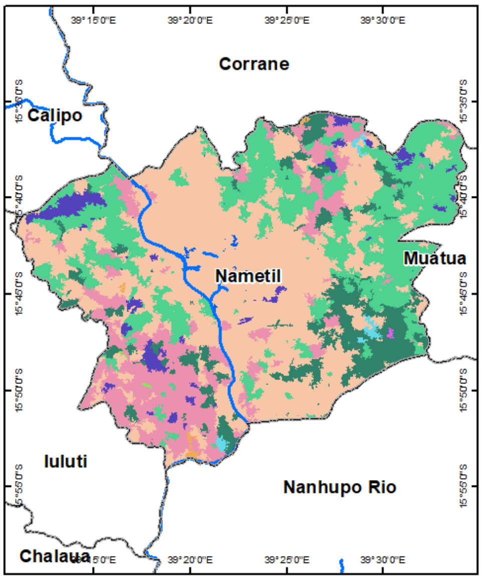
Corrane
Calipo
Muatua
Nametil
Iuluti
Nanhupo Rio
Chalaua

Land cover 2021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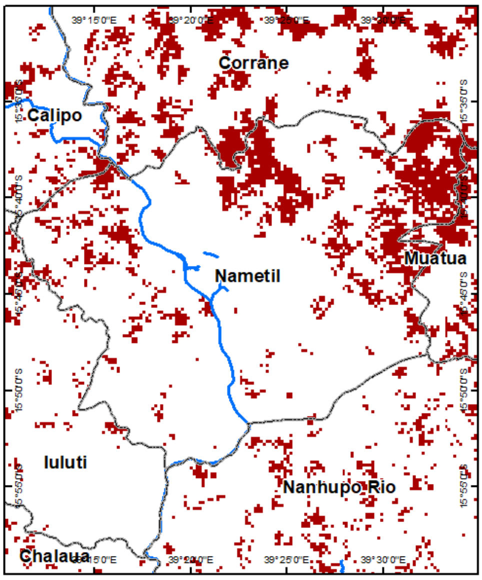
Iuluti
Nanhupo Rio
Chalaua

Drought in 2021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Muatua
Nametil
Iuluti
Nanhupo Rio
Chalaua

Forest area in 2016 (sq km)	64
Forest area in 2021 (sq km)	7
Net biomass change in Mg (2016 - 2021)	-527062
Agricultural area in 2016 (sq km)	203
Agricultural area in 2021 (sq km)	232
Drought (% of agricultural area in 2021)	67

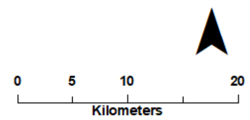
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	■ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	■ Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
■ Forest evergreen open	■ Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nanhupo Rio	**Mogovolas**	**Nampula**

Total population	**55072**
Total area (sq km)	**719**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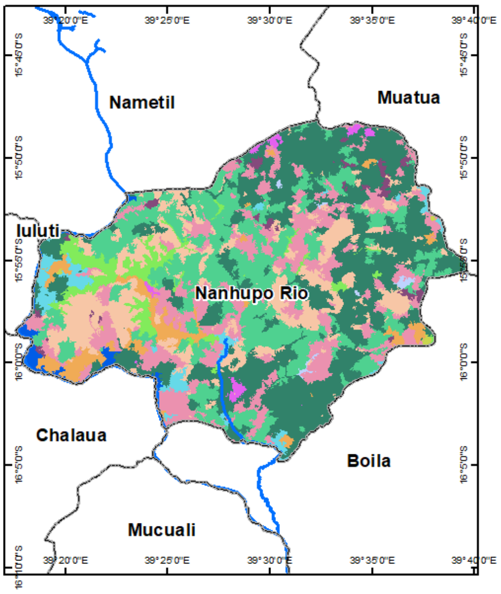
Kilometers

Land cover 2016


Nametil
Muatua
Iuluti
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Chalaua
Boila
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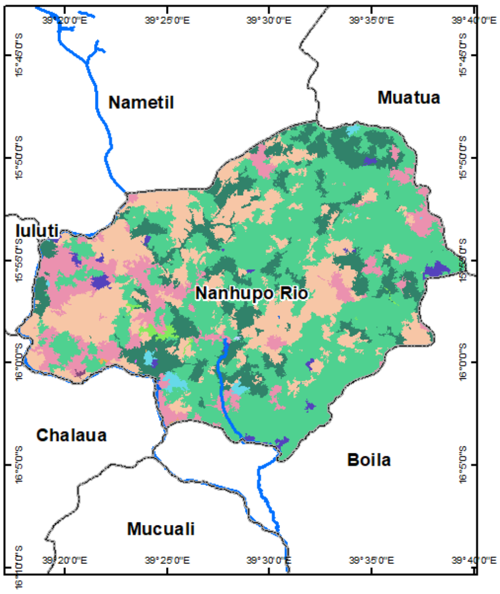
Land cover 2021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Iuluti
Nanhupo Rio
Chalaua
Boila
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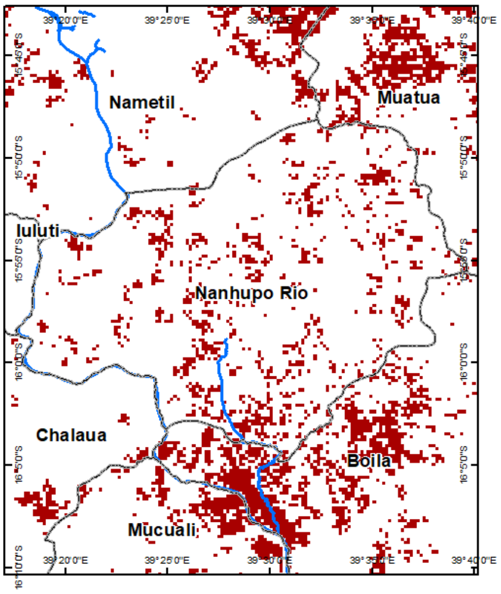
Drought in 2021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39°40'0"E
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16°10'0"S

Forest area in 2016 (sq km)	**57**
Forest area in 2021 (sq km)	**6**
Net biomass change in Mg (2016 - 2021)	**-476486**
Agricultural area in 2016 (sq km)	**163**
Agricultural area in 2021 (sq km)	**337**
Drought (% of agricultural area in 2021)	**25**

Legend

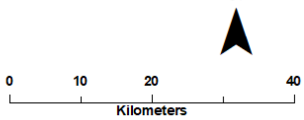
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

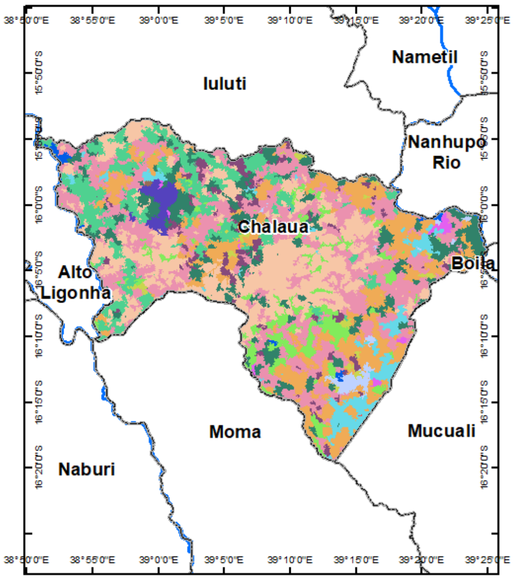
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Chalaua	**Moma**	**Nampula**

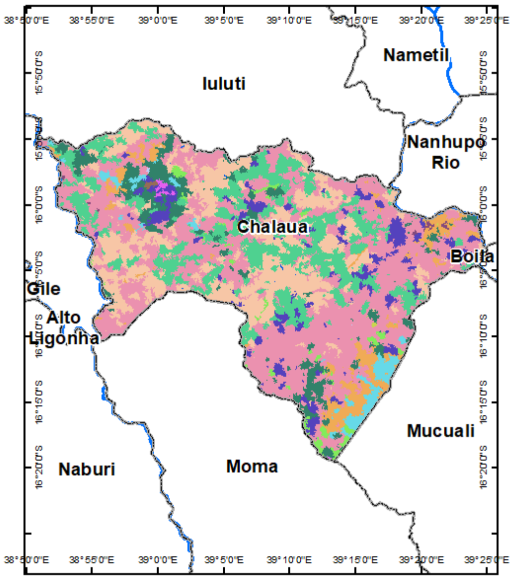

N
0
10
20
40
Kilometers

Total population	97859
Total area (sq km)	1400

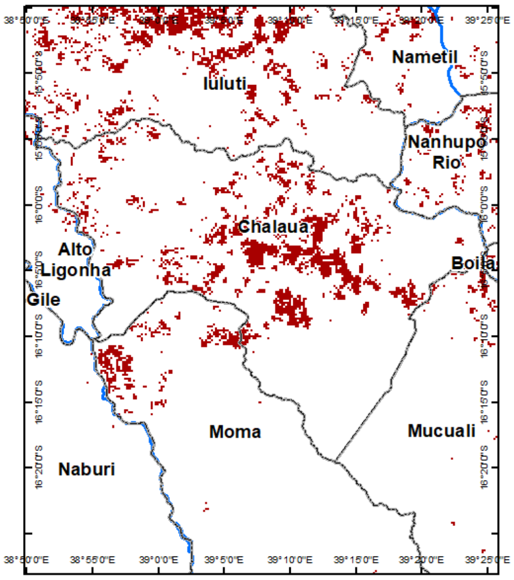
Land cover 2016


Nametil
Iuluti
Nanhupo Rio
Chalaua
Boila
Alto Ligonha
Moma
Mucuali
Naburi

Land cover 2021


Nametil
Iuluti
Nanhupo Rio
Chalaua
Boila
Gile
Alto Ligonha
Mucuali
Naburi
Moma

Drought in 2021


Nametil
Iuluti
Nanhupo Rio
Chalaua
Alto Ligonha
Boila
Gile
Moma
Mucuali
Naburi

Forest area in 2016 (sq km)	294
Forest area in 2021 (sq km)	108
Net biomass change in Mg (2016 - 2021)	-1699520
Agricultural area in 2016 (sq km)	155
Agricultural area in 2021 (sq km)	250
Drought (% of agricultural area in 2021)	63

Legend

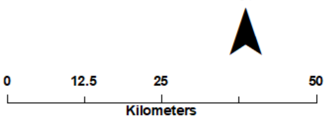
- ⬚ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

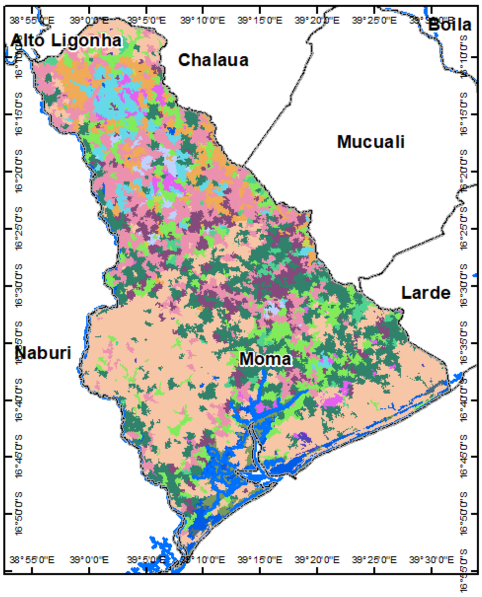
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Moma	**Moma**	**Nampula**

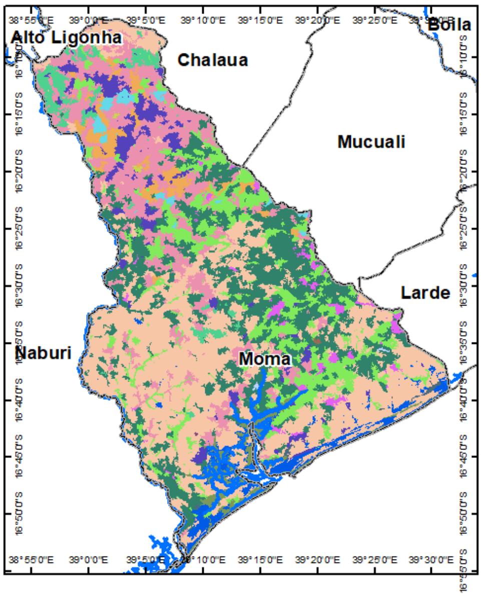

N
0
12.5
25
50
Kilometers

Total population	233737
Total area (sq km)	2510

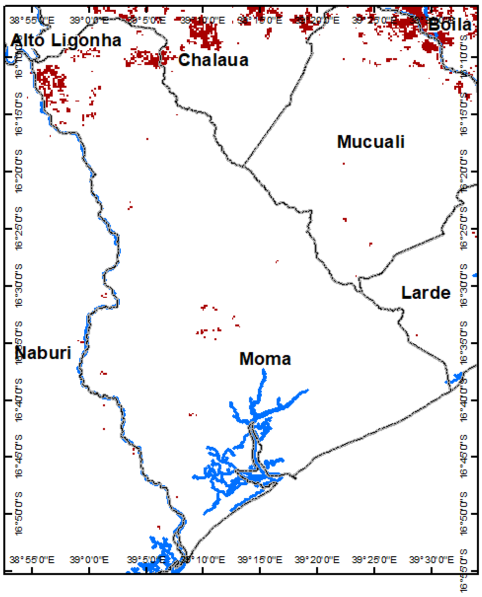
Land cover 2016


Alto Ligonha
Chalaua
Boila
Mucuali
Larde
Naburi
Moma

Land cover 2021


Alto Ligonha
Chalaua
Boila
Mucuali
Larde
Naburi
Moma

Drought in 2021


Alto Ligonha
Chalaua
Boila
Mucuali
Larde
Naburi
Moma

Forest area in 2016 (sq km)	389
Forest area in 2021 (sq km)	231
Net biomass change in Mg (2016 - 2021)	-1487280
Agricultural area in 2016 (sq km)	47
Agricultural area in 2021 (sq km)	64
Drought (% of agricultural area in 2021)	53

Legend

☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

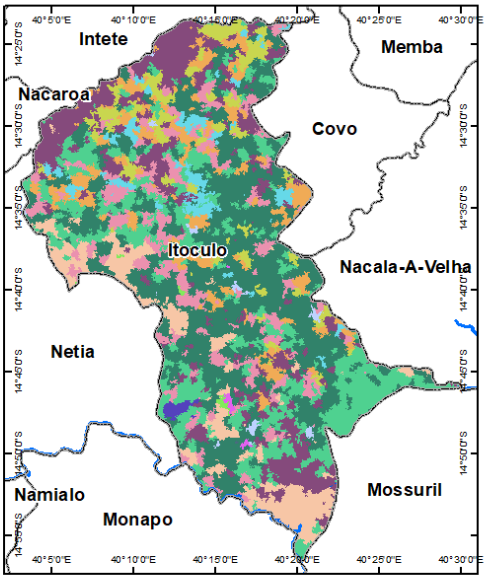
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Itoculo	**Monapo**	**Nampula**

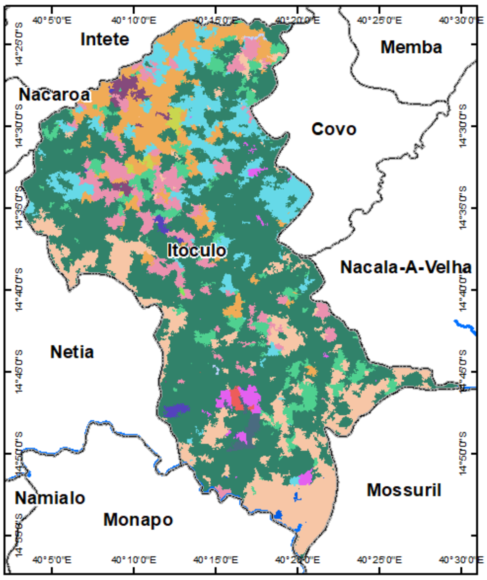
Total population	69068
Total area (sq km)	1243

N
0 5 10 20
Kilometers

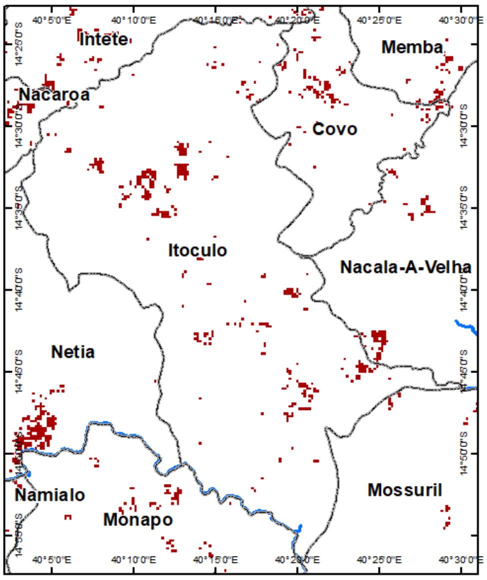
Land cover 2016


Intete
Memba
Nacaroa
Covo
Itoculo
Nacala-A-Velha
Netia
Namialo
Monapo
Mossuril
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Land cover 2021


Intete
Memba
Nacaroa
Covo
Itoculo
Nacala-A-Velha
Netia
Namialo
Monapo
Mossuril
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Drought in 2021


Intete
Memba
Nacaroa
Covo
Itoculo
Nacala-A-Velha
Netia
Namialo
Monapo
Mossuril
40°5'0"E
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40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Forest area in 2016 (sq km)	140
Forest area in 2021 (sq km)	242
Net biomass change in Mg (2016 - 2021)	917125
Agricultural area in 2016 (sq km)	233
Agricultural area in 2021 (sq km)	71
Drought (% of agricultural area in 2021)	37

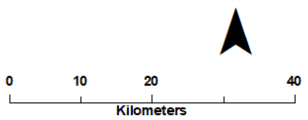
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

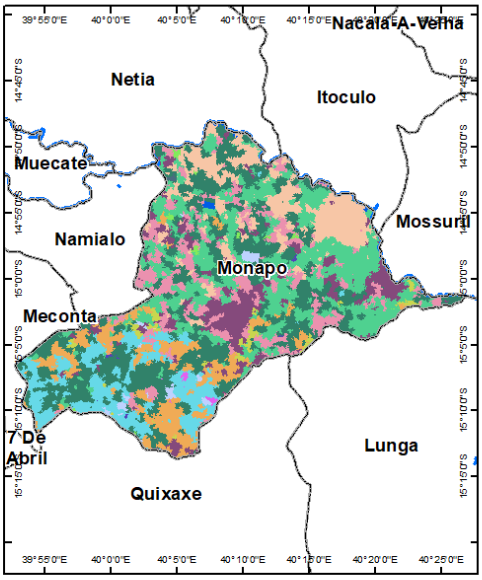
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Monapo	**Monapo**	**Nampula**

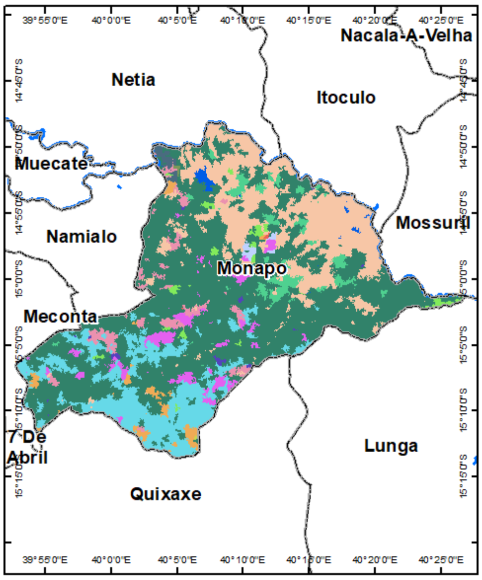
Total population	179258
Total area (sq km)	1233


N
0
10
20
40
Kilometers

Land cover 2016


Nacala-A-Velha
Netia
Itoculo
Muecate
Mossuril
Namialo
Monapo
Meconta
7 De Abril
Lunga
Quixaxe
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S

Land cover 2021


Nacala-A-Velha
Netia
Itoculo
Muecate
Mossuril
Namialo
Monapo
Meconta
7 De Abril
Lunga
Quixaxe
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
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14°50'0"S
14°55'0"S
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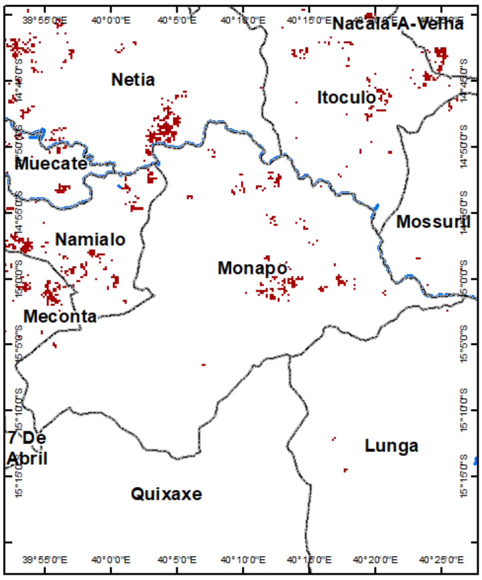
15°5'0"S
15°10'0"S
15°15'0"S

Drought in 2021


Nacala-A-Velha
Netia
Itoculo
Muecate
Mossuril
Namialo
Monapo
Meconta
7 De Abril
Lunga
Quixaxe
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S

Forest area in 2016 (sq km)	234
Forest area in 2021 (sq km)	224
Net biomass change in Mg (2016 - 2021)	30785
Agricultural area in 2016 (sq km)	276
Agricultural area in 2021 (sq km)	36
Drought (% of agricultural area in 2021)	41

Legend

☐	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

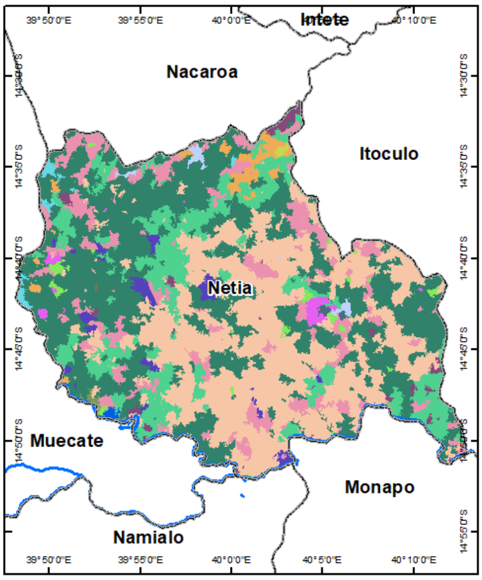
Posto	District	Province
Netia	**Monapo**	**Nampula**

Total population	211250
Total area (sq km)	1040

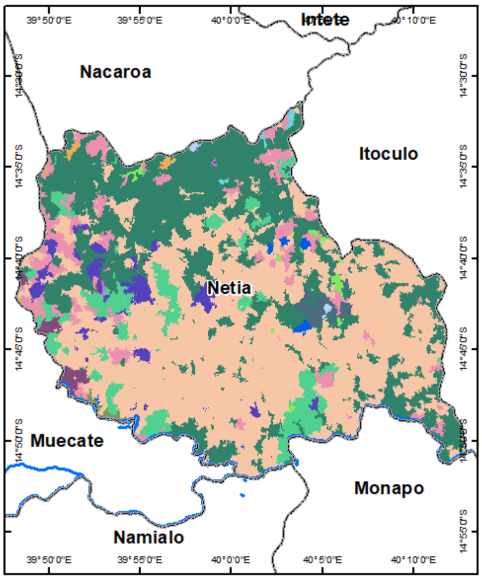
N

0 5 10 20
Kilometers

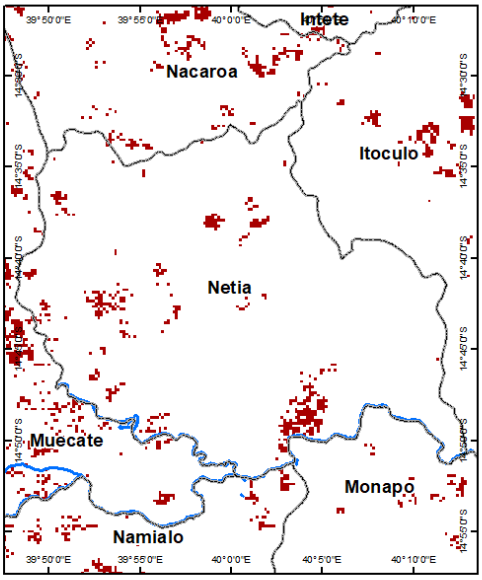
Land cover 2016


Intete
Nacaroa
Itoculo
Netia
Muecate
Monapo
Namialo
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Land cover 2021


Intete
Nacaroa
Itoculo
Netia
Muecate
Monapo
Namialo
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Drought in 2021


Intete
Nacaroa
Itoculo
Netia
Muecate
Monapo
Namialo
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
40°10'0"E
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S

Forest area in 2016 (sq km)	41
Forest area in 2021 (sq km)	22
Net biomass change in Mg (2016 - 2021)	-196097
Agricultural area in 2016 (sq km)	144
Agricultural area in 2021 (sq km)	73
Drought (% of agricultural area in 2021)	44

Legend

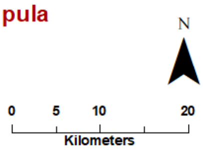
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Lunga	**Mossuril**	**Nampula**


N
0
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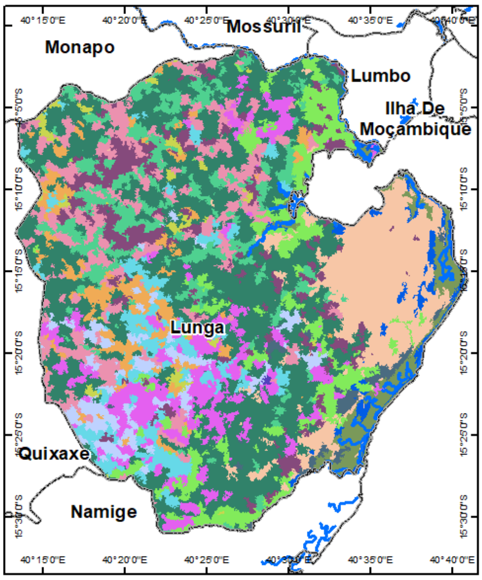
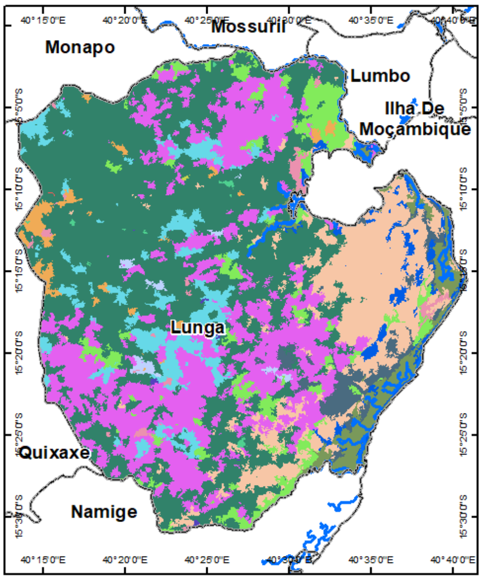
Kilometers

Total population	49899
Total area (sq km)	1825

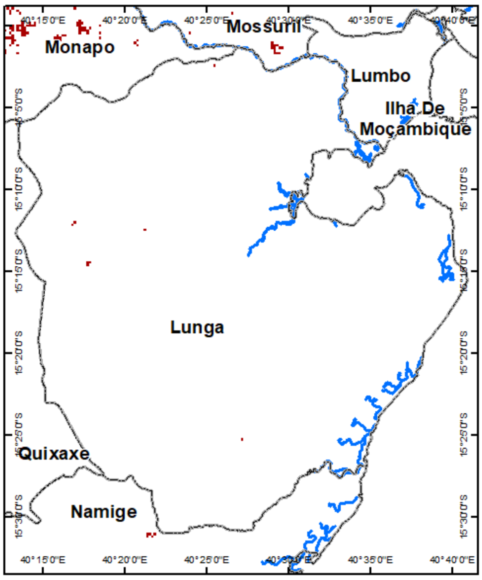
Land cover 2016


Mossuril
Monapo
Lumbo
Ilha De Moçambique
Lunga
Quixaxe
Namige
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
15°30'0"S

Land cover 2021


Mossuril
Monapo
Lumbo
Ilha De Moçambique
Lunga
Quixaxe
Namige
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
15°30'0"S

Drought in 2021


Mossuril
Monapo
Lumbo
Ilha De Moçambique
Lunga
Quixaxe
Namige
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
15°30'0"S

Forest area in 2016 (sq km)	466
Forest area in 2021 (sq km)	670
Net biomass change in Mg (2016 - 2021)	2695147
Agricultural area in 2016 (sq km)	145
Agricultural area in 2021 (sq km)	2
Drought (% of agricultural area in 2021)	25

Legend

☐ Admin boundary (level 3)

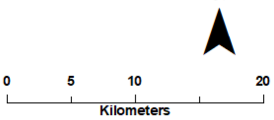
— Waterways

Land cover

🟪	Bare ground	🟩	Mangrove
🟩	Flooded herbaceous area	⬛	Mecrusse
🟦	Forest deciduous closed	🟫	Mountain forest
🟧	Forest deciduous open	🟩	Non-tree cultivation
🟪	Forest evergreen closed	🟨	Prairie
🟦	Forest evergreen open	🟥	Prairie tree
🟥	Forest plantation	🟪	Rock without vegetation
		🟩	Tree cultivation
		🟧	Urban area
		🟦	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Matibane	**Mossuril**	**Nampula**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5
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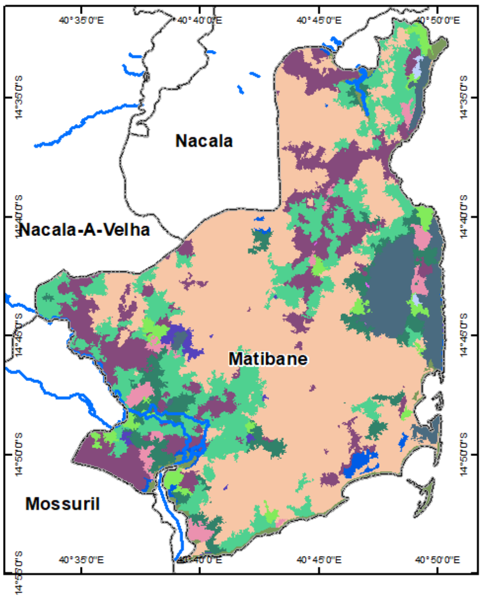
20
Kilometers

Total population	52930
Total area (sq km)	707

Land cover 2016


40°35'0"E
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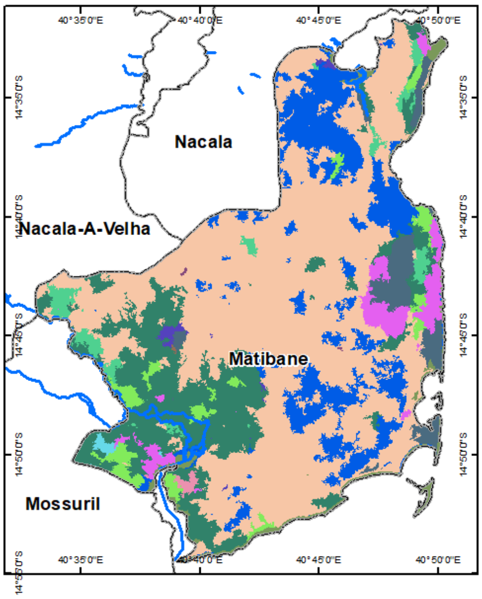
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Nacala
Nacala-A-Velha
Matibane
Mossuril

Land cover 2021


40°35'0"E
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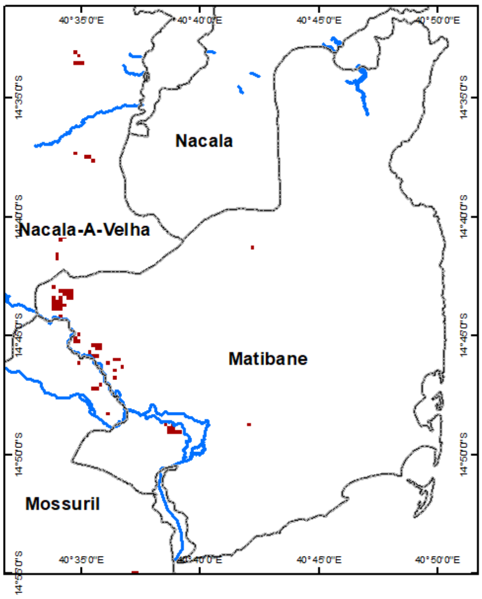
40°50'0"E
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Nacala
Nacala-A-Velha
Matibane
Mossuril

Drought in 2021


40°35'0"E
40°40'0"E
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40°50'0"E
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Nacala
Nacala-A-Velha
Matibane
Mossuril

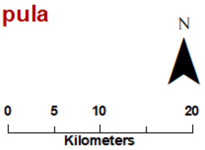
Forest area in 2016 (sq km)	63
Forest area in 2021 (sq km)	68
Net biomass change in Mg (2016 - 2021)	116253
Agricultural area in 2016 (sq km)	123
Agricultural area in 2021 (sq km)	16
Drought (% of agricultural area in 2021)	24

Legend

⬚ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

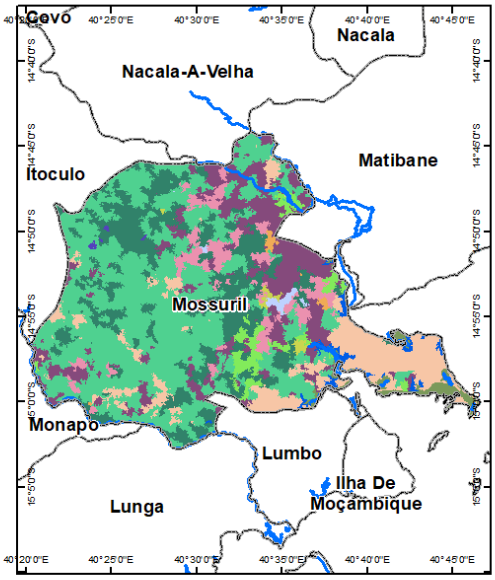
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Mossuril	**Mossuril**	**Nampula**

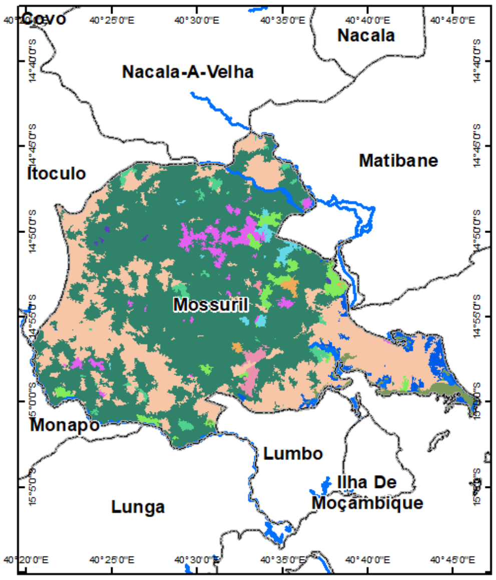

N
0
5
10
20
Kilometers

Total population	47282
Total area (sq km)	848

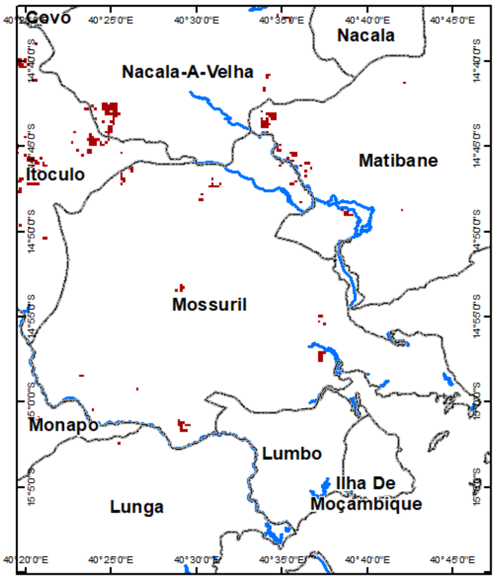
Land cover 2016


Cavo
Nacala
Nacala-A-Velha
Matibane
Itoculo
Mossuril
Monapo
Lumbo
Ilha De Moçambique
Lunga
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
40°45'0"E
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S

Land cover 2021


Cavo
Nacala
Nacala-A-Velha
Matibane
Itoculo
Mossuril
Monapo
Lumbo
Ilha De Moçambique
Lunga
40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
40°45'0"E
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S

Drought in 2021


Cavo
Nacala
Nacala-A-Velha
Matibane
Itoculo
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Monapo
Lumbo
Ilha De Moçambique
Lunga
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40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
40°45'0"E
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S

Forest area in 2016 (sq km)	26
Forest area in 2021 (sq km)	52
Net biomass change in Mg (2016 - 2021)	306152

Agricultural area in 2016 (sq km)	355
Agricultural area in 2021 (sq km)	14
Drought (% of agricultural area in 2021)	36

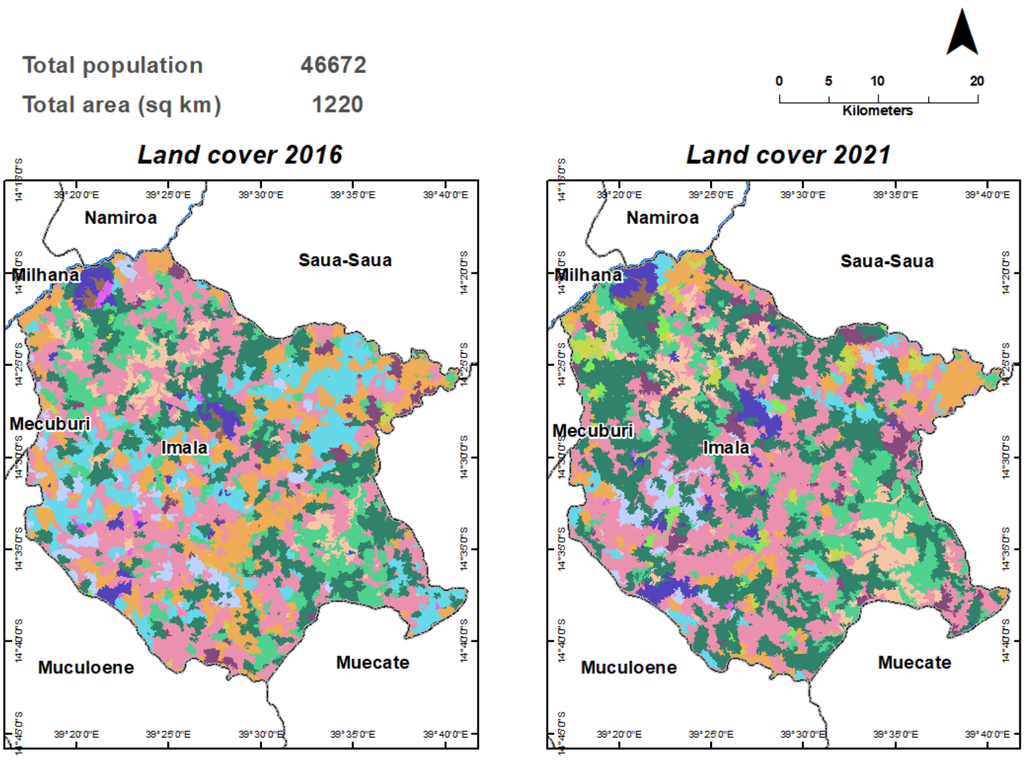
Legend

☐ Admin boundary (level 3)	🟩 Mangrove
— Waterways	■ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	■ Prairie tree
🟧 Forest deciduous open	🟦 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
■ Forest evergreen open	■ Urban area
🟥 Forest plantation	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Imala	**Muecate**	**Nampula**

Total population	46672
Total area (sq km)	1220


N
0
5
10
20
Kilometers
Land cover 2016
Land cover 2021
Namiroa
Saua-Saua
Milhana
Mecuburi
Imala
Muculoene
Muecate
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
14°15'0"S
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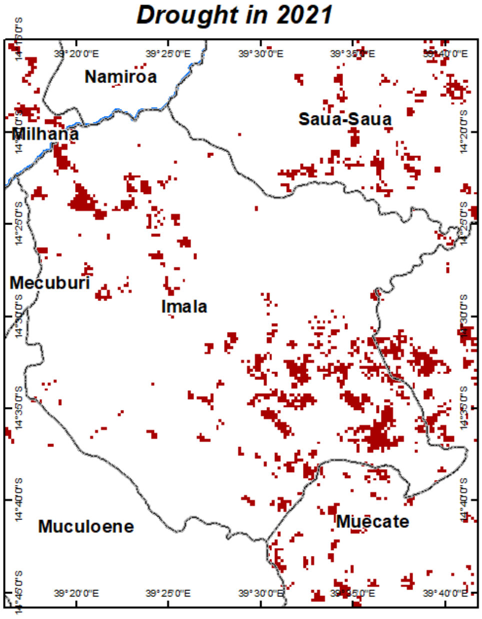
14°40'0"S
14°45'0"S


Drought in 2021
Namiroa
Saua-Saua
Milhana
Mecuburi
Imala
Muculoene
Muecate
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S

Forest area in 2016 (sq km)	414
Forest area in 2021 (sq km)	160
Net biomass change in Mg (2016 - 2021)	-2264119
Agricultural area in 2016 (sq km)	146
Agricultural area in 2021 (sq km)	134
Drought (% of agricultural area in 2021)	67

Legend

- ☐ Admin boundary (level 3)
- — Waterways

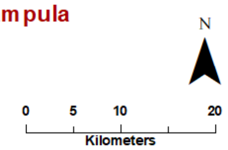
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

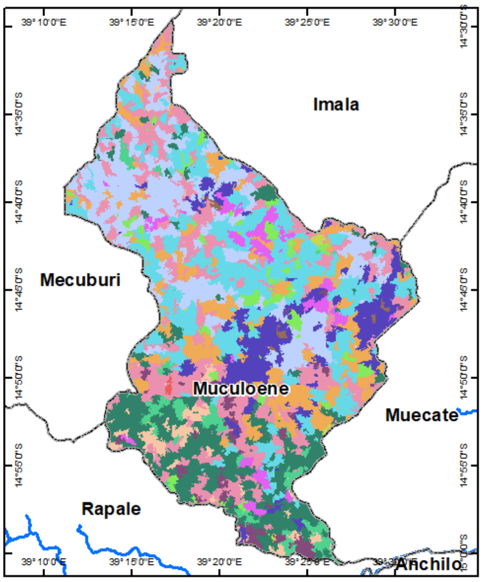
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Muculoene	**Muecate**	**Nampula**

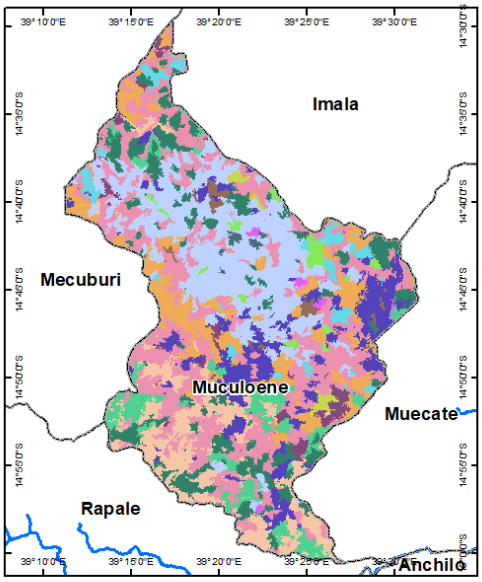
Total population	26211
Total area (sq km)	978


N
0
5
10
20
Kilometers

Land cover 2016


39°10'0"E
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Imala
Mecuburi
Muculoene
Muecate
Rapale
Anchilo

Land cover 2021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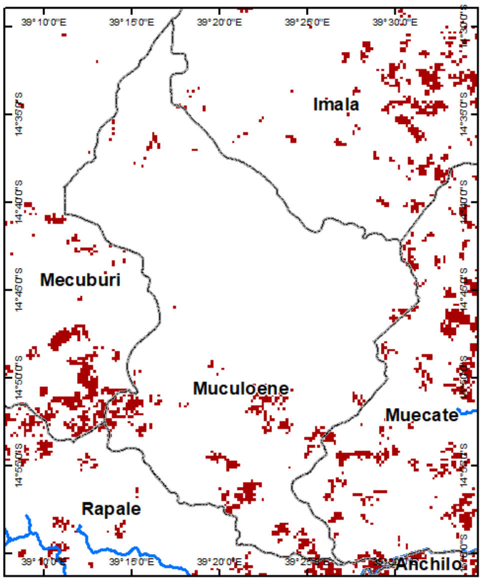
14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Imala
Mecuburi
Muculoene
Muecate
Rapale
Anchilo

Drought in 2021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39°20'0"E
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14°30'0"S
14°35'0"S
14°40'0"S
14°45'0"S
14°50'0"S
14°55'0"S
Imala
Mecuburi
Muculoene
Muecate
Rapale
Anchilo

Forest area in 2016 (sq km)	484
Forest area in 2021 (sq km)	342
Net biomass change in Mg (2016 - 2021)	-1148091

Agricultural area in 2016 (sq km)	30
Agricultural area in 2021 (sq km)	58
Drought (% of agricultural area in 2021)	61

Legend

⬚ Admin boundary (level 3)	🟩 Mangrove
— Waterways	⬛ Mecrusse
Land cover	🟫 Mountain forest
🟪 Bare ground	🟩 Non-tree cultivation
🟩 Flooded herbaceous area	🟨 Prairie
🟦 Forest deciduous closed	🟥 Prairie tree
🟧 Forest deciduous open	🟪 Rock without vegetation
🟪 Forest evergreen closed	🟩 Tree cultivation
🟦 Forest evergreen open	🟧 Urban area
🟥 Forest plantation	🟦 Water body

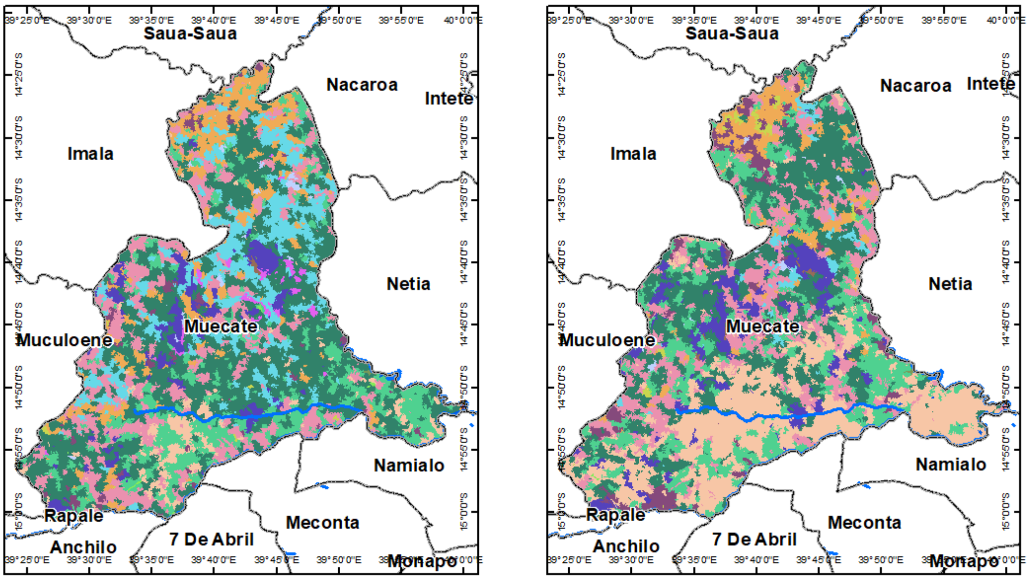
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Muecate	**Muecate**	**Nampula**

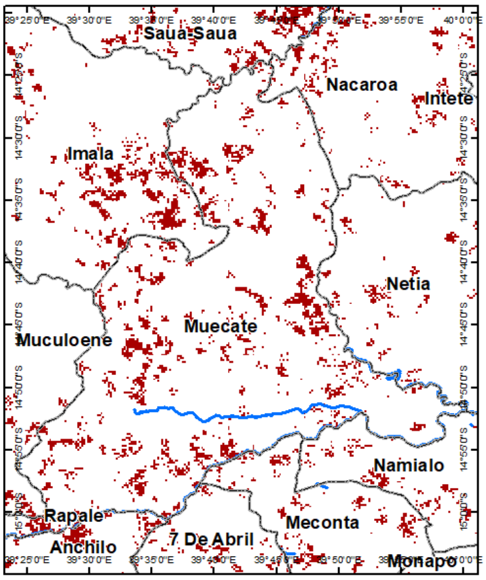
Total population	74980
Total area (sq km)	1908

N
0
10
20
40
Kilometers

Land cover 2016 *Land cover 2021*


Saua-Saua
Nacaroa
Intete
Imala
Netia
Muecate
Muculoene
Namialo
Rapale
Meconta
7 De Abril
Anchilo
Monapo

Drought in 2021


Saua-Saua
Nacaroa
Intete
Imala
Netia
Muecate
Muculoene
Namialo
Rapale
Meconta
7 De Abril
Anchilo
Monapo

Forest area in 2016 (sq km)	447
Forest area in 2021 (sq km)	142
Net biomass change in Mg (2016 - 2021)	-2737846
Agricultural area in 2016 (sq km)	267
Agricultural area in 2021 (sq km)	325
Drought (% of agricultural area in 2021)	56

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

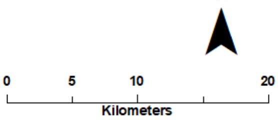
Chinga

District

Murrupula

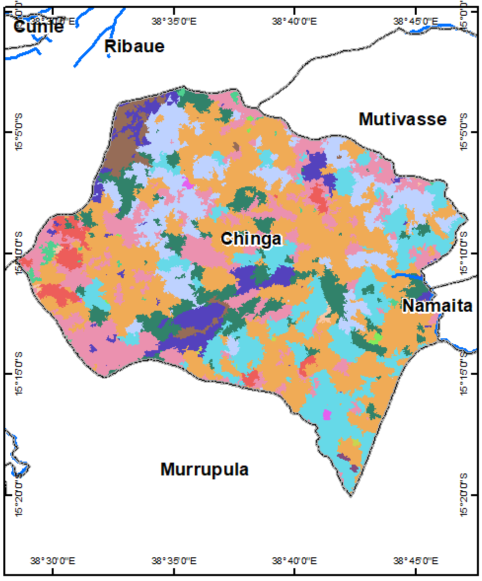
Province

Nampula

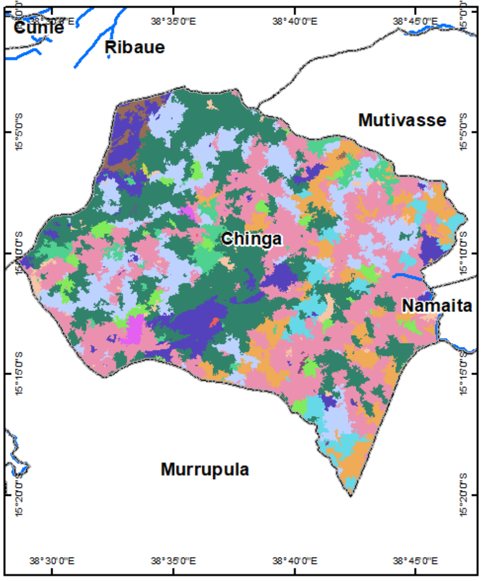

N
0
5
10
20
Kilometers

Total population	33715
Total area (sq km)	572

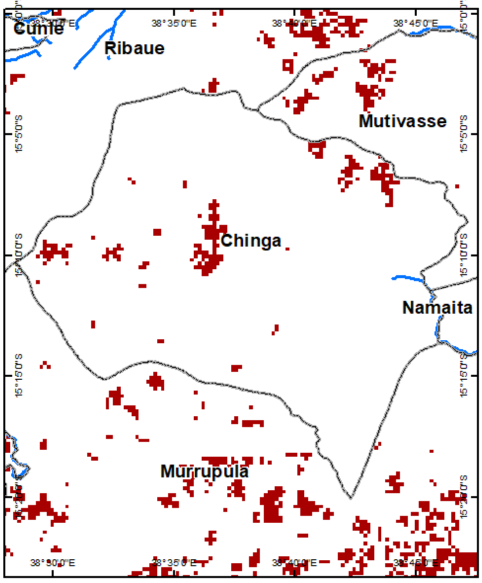
Land cover 2016


Cunle
Ribaue
Mutivasse
Chinga
Namaita
Murrupula
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S

Land cover 2021


Cunle
Ribaue
Mutivasse
Chinga
Namaita
Murrupula
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S

Drought in 2021


Cunle
Ribaue
Mutivasse
Chinga
Namaita
Murrupula
38°30'0"E
38°35'0"E
38°40'0"E
38°45'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S

Forest area in 2016 (sq km)	389
Forest area in 2021 (sq km)	168
Net biomass change in Mg (2016 - 2021)	-1898613
Agricultural area in 2016 (sq km)	3
Agricultural area in 2021 (sq km)	20
Drought (% of agricultural area in 2021)	89

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

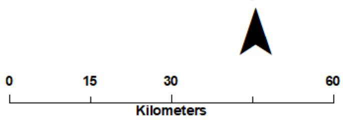
Murrupula

District

Murrupula

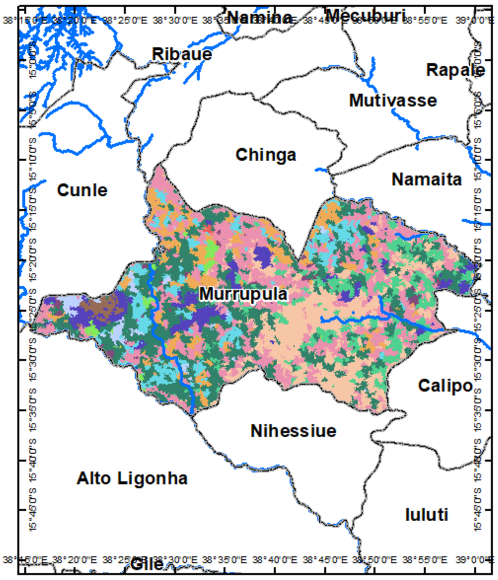
Province

Nampula

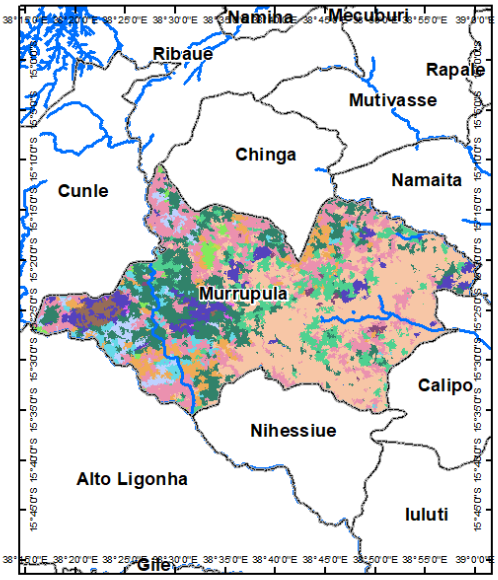

N
0
15
30
60
Kilometers

Total population	**149689**
Total area (sq km)	**1958**

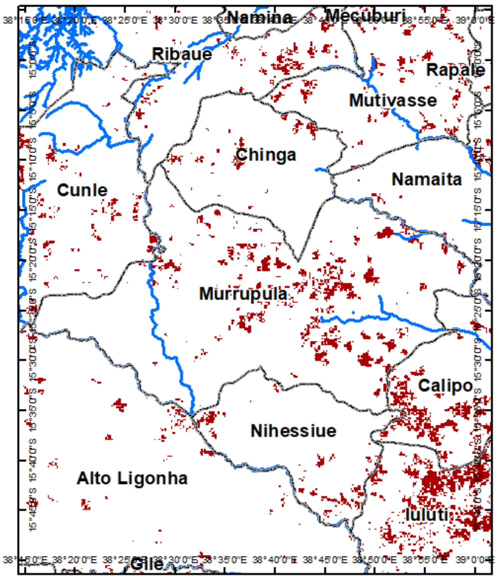
Land cover 2016


Namaiha
Mecuburi
Ribaue
Rapale
Mutivasse
Chinga
Namaita
Cunle
Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Land cover 2021


Namaiha
Mecuburi
Ribaue
Rapale
Mutivasse
Chinga
Namaita
Cunle
Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Drought in 2021


Namaiha
Mecuburi
Ribaue
Rapale
Mutivasse
Chinga
Namaita
Cunle
Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Forest area in 2016 (sq km)	**355**
Forest area in 2021 (sq km)	**261**
Net biomass change in Mg (2016 - 2021)	**-678831**
Agricultural area in 2016 (sq km)	**176**
Agricultural area in 2021 (sq km)	**182**
Drought (% of agricultural area in 2021)	**71**

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

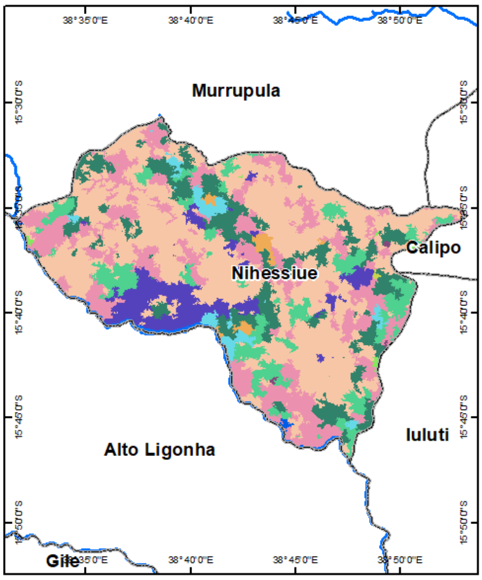
Posto	District	Province
Nihessiue	**Murrupula**	**Nampula**

Total population	36909
Total area (sq km)	564

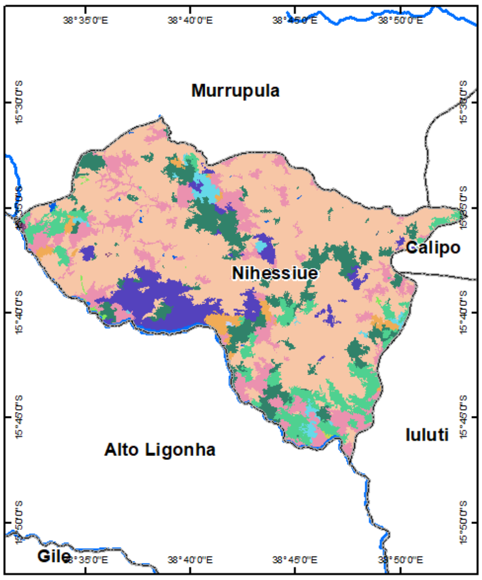
N

0 5 10 20
Kilometers

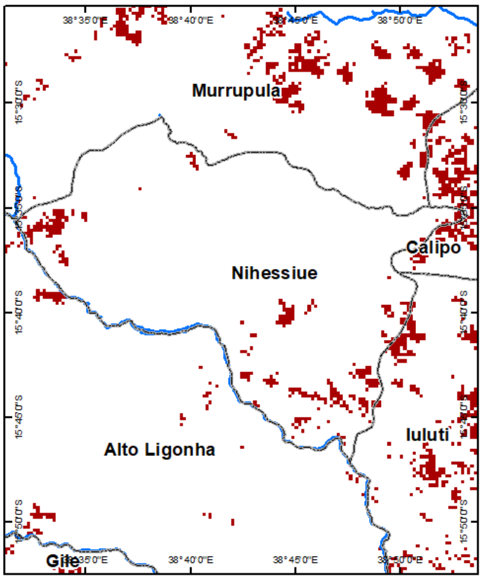
Land cover 2016


Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Land cover 2021


Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Drought in 2021


Murrupula
Calipo
Nihessiue
Alto Ligonha
Iuluti
Gile

Forest area in 2016 (sq km)	18
Forest area in 2021 (sq km)	20
Net biomass change in Mg (2016 - 2021)	13893
Agricultural area in 2016 (sq km)	58
Agricultural area in 2021 (sq km)	43
Drought (% of agricultural area in 2021)	55

Legend

▭	Admin boundary (level 3)	■	Mangrove
—	Waterways	■	Mecrusse
Land cover		■	Mountain forest
■	Bare ground	■	Non-tree cultivation
■	Flooded herbaceous area	■	Prairie
■	Forest deciduous closed	■	Prairie tree
■	Forest deciduous open	■	Rock without vegetation
■	Forest evergreen closed	■	Tree cultivation
■	Forest evergreen open	■	Urban area
■	Forest plantation	■	Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

Nacala

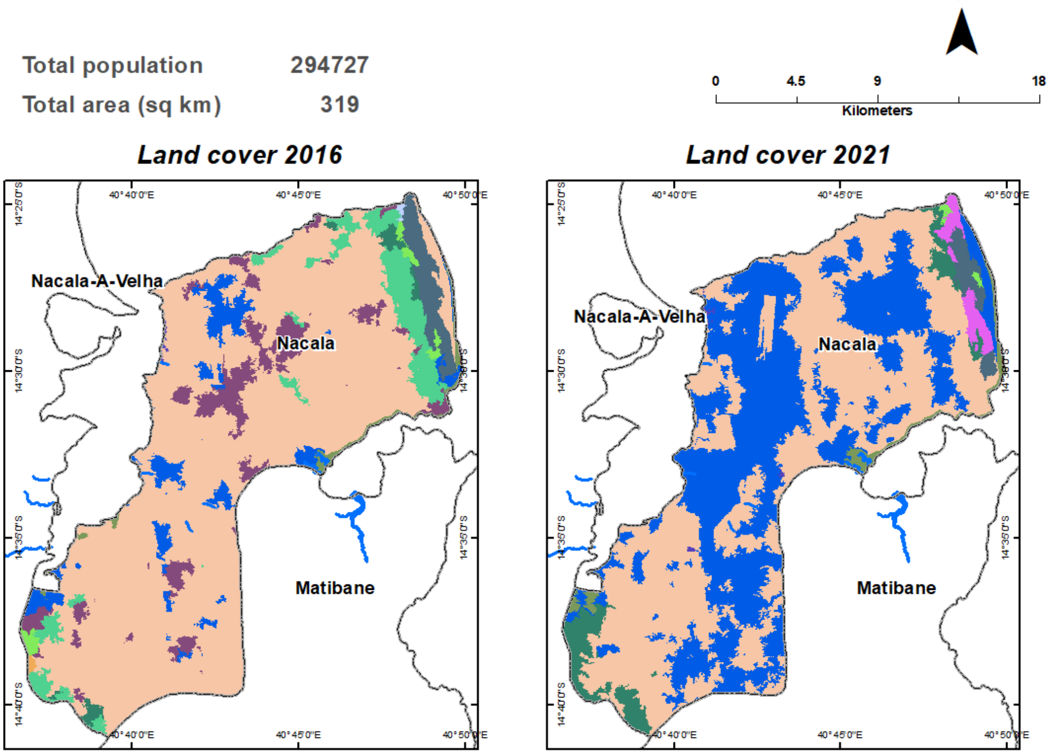
District

Nacala

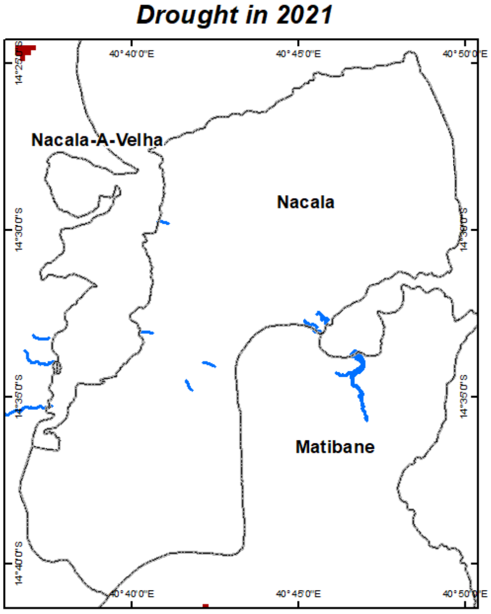
Province

Nampula

Total population	294727
Total area (sq km)	319


Land cover 2016

Land cover 2021


Drought in 2021

Forest area in 2016 (sq km)	14
Forest area in 2021 (sq km)	16
Net biomass change in Mg (2016 - 2021)	30384
Agricultural area in 2016 (sq km)	22
Agricultural area in 2021 (sq km)	0
Drought (% of agricultural area in 2021)	0

Legend

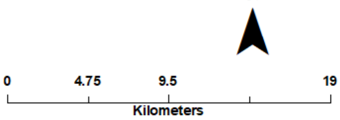
☐ Admin boundary (level 3)
— Waterways

Land cover

■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

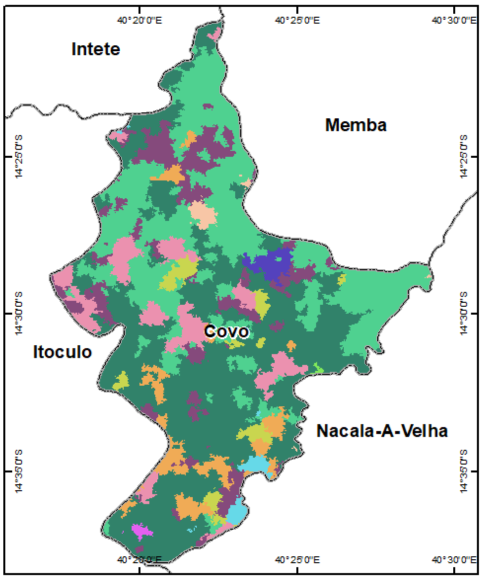
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Covo	**Nacala-A-Velha**	**Nampula**

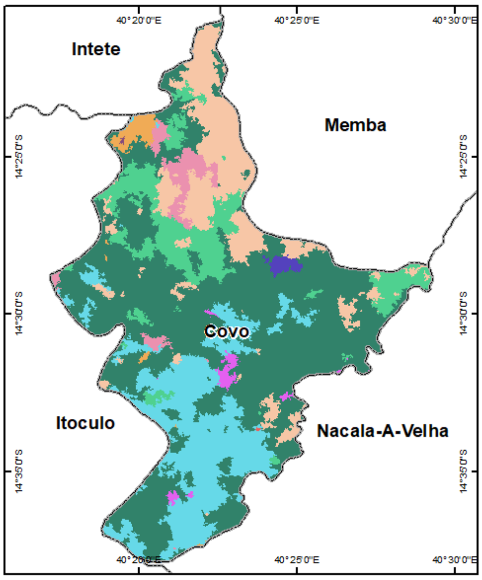

N
0
4.75
9.5
19
Kilometers

Total population	29904
Total area (sq km)	288

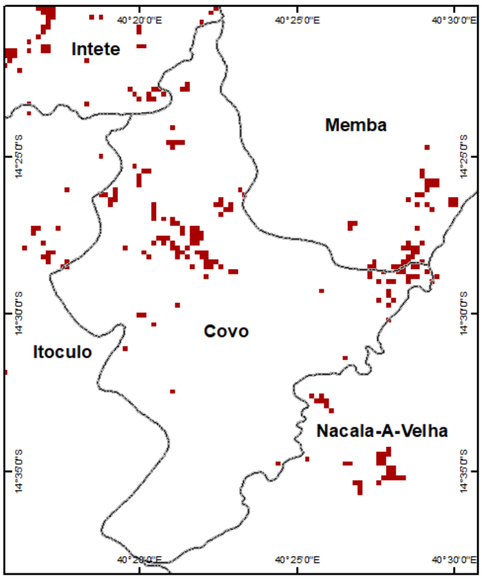
Land cover 2016


Intete
Memba
Covo
Itoculo
Nacala-A-Velha
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S

Land cover 2021


Intete
Memba
Covo
Itoculo
Nacala-A-Velha
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S

Drought in 2021


Intete
Memba
Covo
Itoculo
Nacala-A-Velha
40°20'0"E
40°25'0"E
40°30'0"E
14°25'0"S
14°30'0"S
14°35'0"S

Forest area in 2016 (sq km)	18
Forest area in 2021 (sq km)	59
Net biomass change in Mg (2016 - 2021)	362518
Agricultural area in 2016 (sq km)	89
Agricultural area in 2021 (sq km)	31
Drought (% of agricultural area in 2021)	28

Legend

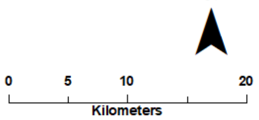
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- 🟦 Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

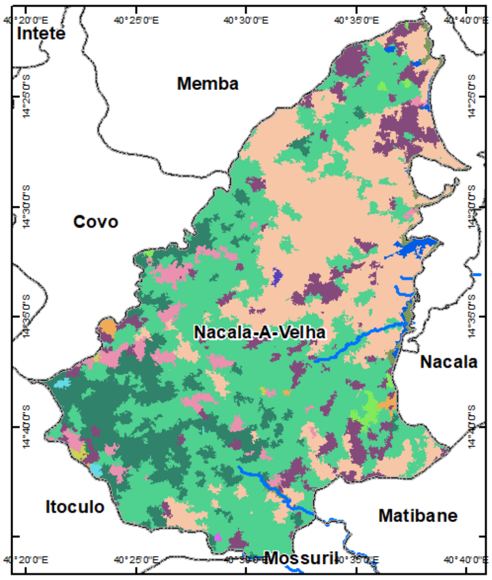
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nacala-A-Velha	**Nacala-A-Velha**	**Nampula**

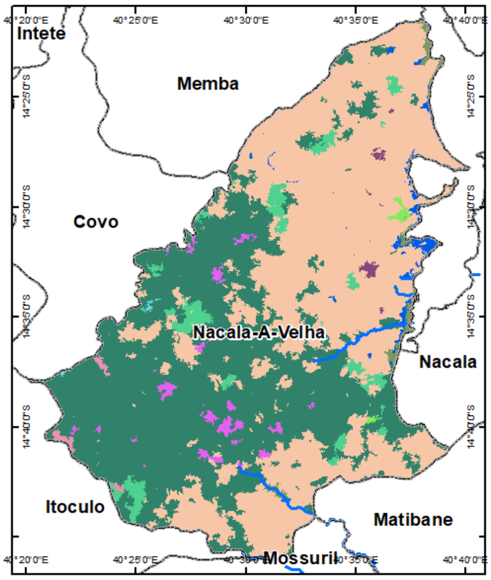

N
0
5
10
20
Kilometers

Total population	77709
Total area (sq km)	845

Land cover 2016


40°20'0"E
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
Intete
Memba
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane
Mossuril

Land cover 2021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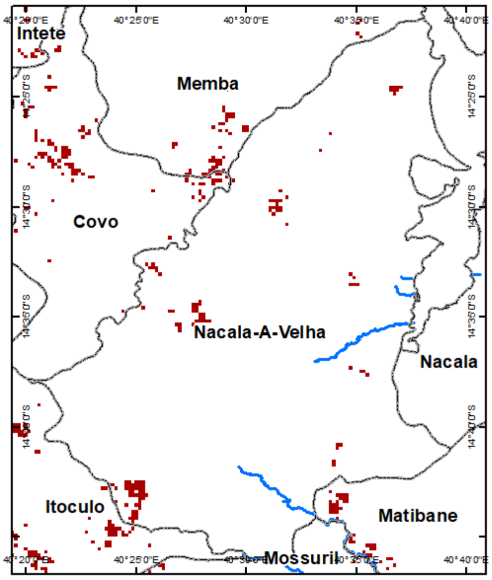
40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
Intete
Memba
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane
Mossuril

Drought in 2021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40°25'0"E
40°30'0"E
40°35'0"E
40°40'0"E
14°25'0"S
14°30'0"S
14°35'0"S
14°40'0"S
Intete
Memba
Covo
Nacala-A-Velha
Nacala
Itoculo
Matibane
Mossuril

Forest area in 2016 (sq km)	16
Forest area in 2021 (sq km)	20
Net biomass change in Mg (2016 - 2021)	78215
Agricultural area in 2016 (sq km)	366
Agricultural area in 2021 (sq km)	26
Drought (% of agricultural area in 2021)	35

Legend

- ☐ Admin boundary (level 3)
- — Waterways

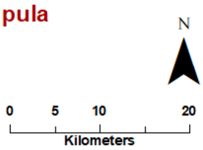
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

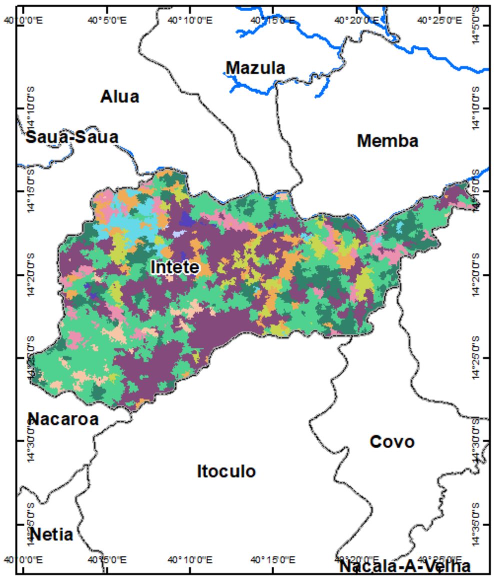
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Intete	**Nacaroa**	**Nampula**

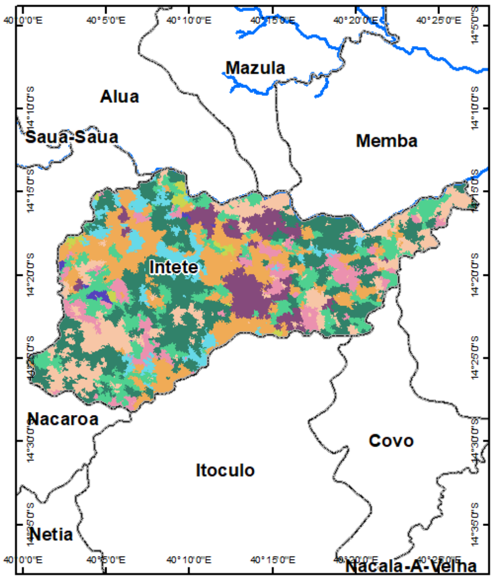
Total population	51812
Total area (sq km)	685


N
0
5
10
20
Kilometers

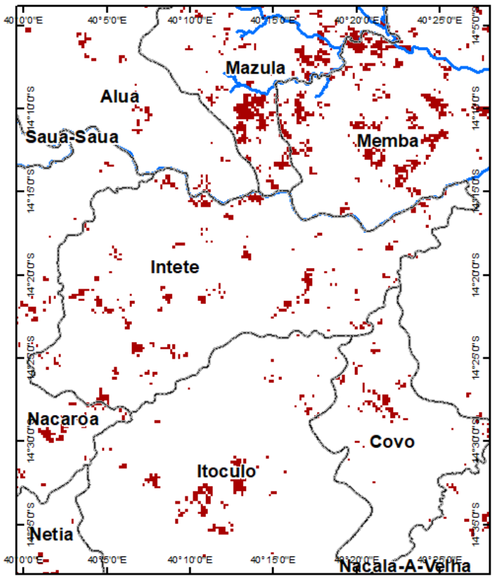
Land cover 2016


Mazula
Alua
Saua-Saua
Memba
Intete
Nacaroa
Covo
Itoculo
Netia
Nacala-A-Velha
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
14°5'0"S
14°10'0"S
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S

Land cover 2021


Mazula
Alua
Saua-Saua
Memba
Intete
Nacaroa
Covo
Itoculo
Netia
Nacala-A-Velha
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
14°5'0"S
14°10'0"S
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S

Drought in 2021


Mazula
Alua
Saua-Saua
Memba
Intete
Nacaroa
Covo
Itoculo
Netia
Nacala-A-Velha
40°0'0"E
40°5'0"E
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
14°5'0"S
14°10'0"S
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S

Forest area in 2016 (sq km)	68
Forest area in 2021 (sq km)	175
Net biomass change in Mg (2016 - 2021)	924453

Agricultural area in 2016 (sq km)	220
Agricultural area in 2021 (sq km)	98
Drought (% of agricultural area in 2021)	30

Legend

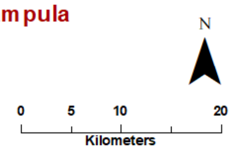
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
⬜ Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

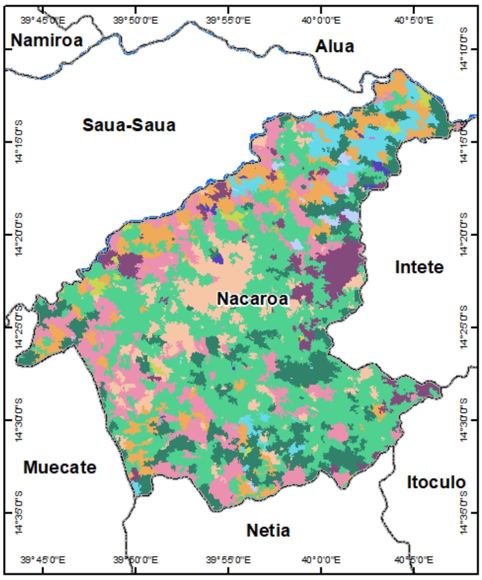
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Nacaroa	**Nacaroa**	**Nampula**

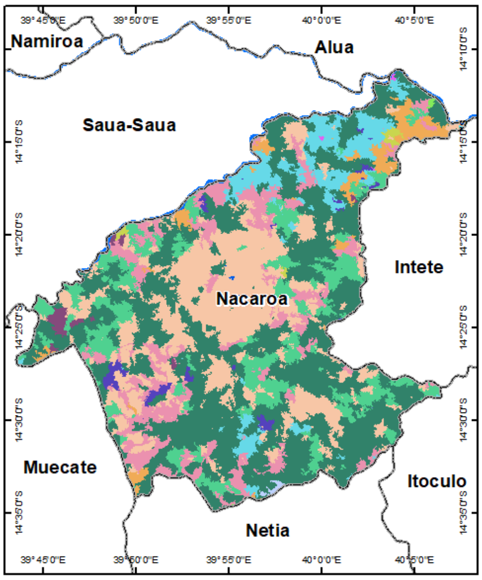

N
0
5
10
20
Kilometers

Total population	**74677**
Total area (sq km)	**934**

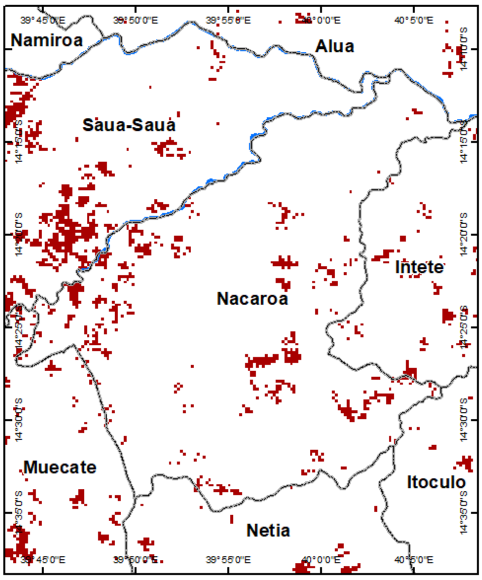
Land cover 2016


Namiroa
Alua
Saua-Saua
Intete
Nacaroa
Muecate
Itoculo
Netia
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
14°10'0"S
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S

Land cover 2021


Namiroa
Alua
Saua-Saua
Intete
Nacaroa
Muecate
Itoculo
Netia
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E
14°10'0"S
14°15'0"S
14°20'0"S
14°25'0"S
14°30'0"S
14°35'0"S

Drought in 2021


Namiroa
Alua
Saua-Saua
Intete
Nacaroa
Muecate
Itoculo
Netia
39°45'0"E
39°50'0"E
39°55'0"E
40°0'0"E
40°5'0"E

Forest area in 2016 (sq km)	**145**
Forest area in 2021 (sq km)	**94**
Net biomass change in Mg (2016 - 2021)	**-464639**
Agricultural area in 2016 (sq km)	**353**
Agricultural area in 2021 (sq km)	**124**
Drought (% of agricultural area in 2021)	**39**

Legend

- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto

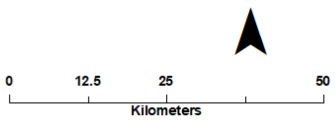
Saua-Saua

District

Nacaroa

Province

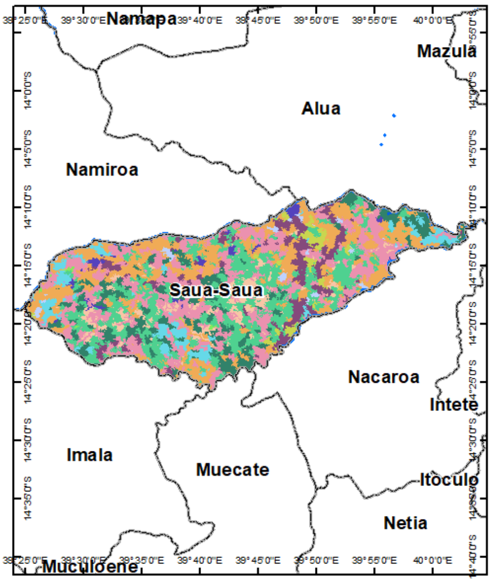
Nampula


N
0
12.5
25
50
Kilometers

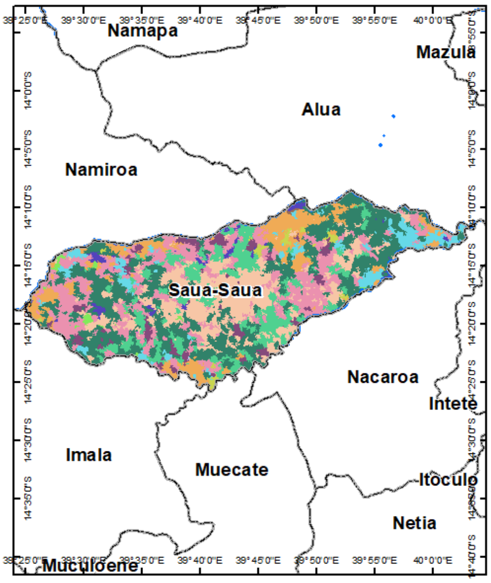
Total population 24505

Total area (sq km) 1095

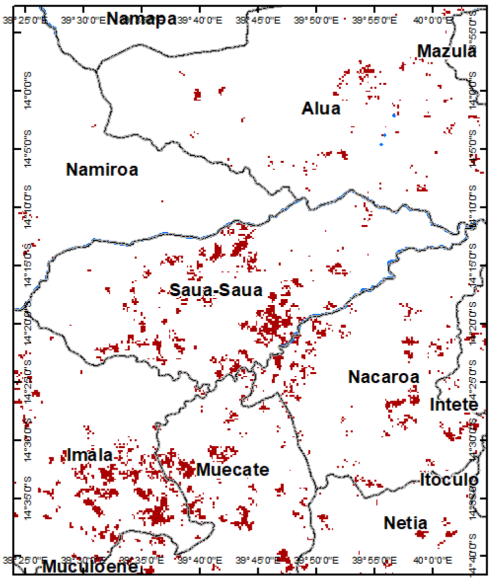
Land cover 2016


Namapa
Mazula
Alua
Namiroa
Saua-Saua
Nacaroa
Intete
Imala
Muecate
Itoculo
Netia
Muculoene

Land cover 2021


Namapa
Mazula
Alua
Namiroa
Saua-Saua
Nacaroa
Intete
Imala
Muecate
Itoculo
Netia
Muculoene

Drought in 2021


Namapa
Mazula
Alua
Namiroa
Saua-Saua
Nacaroa
Intete
Imala
Muecate
Itoculo
Netia
Muculoene

Forest area in 2016 (sq km)	**304**
Forest area in 2021 (sq km)	**172**
Net biomass change in Mg (2016 - 2021)	**-1199131**
Agricultural area in 2016 (sq km)	**233**
Agricultural area in 2021 (sq km)	**140**
Drought (% of agricultural area in 2021)	**60**

Legend

☐ Admin boundary (level 3)

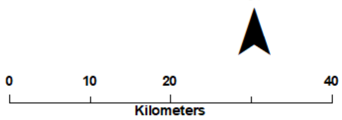
— Waterways

Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- ⬜ Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

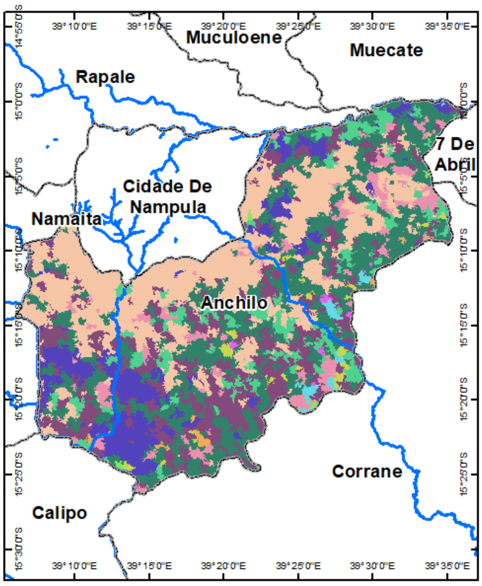
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Anchilo	**Rapale**	**Nampula**

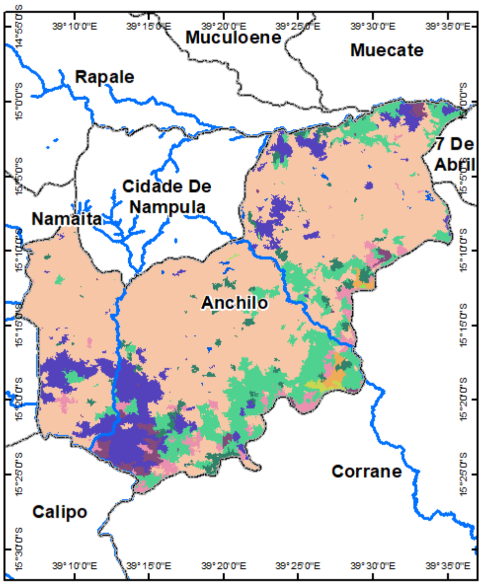

N
0
10
20
40
Kilometers

Total population	**145876**
Total area (sq km)	**1317**

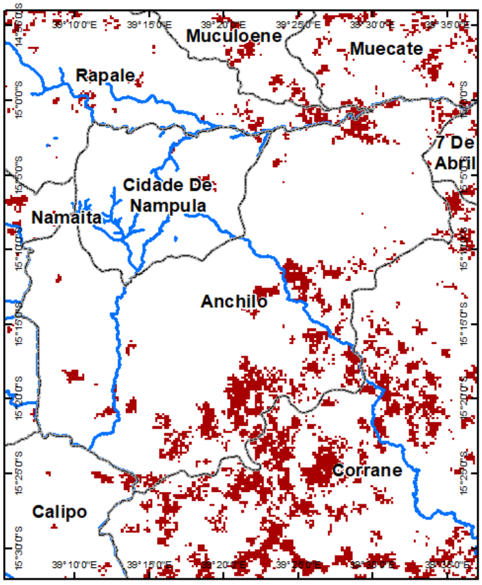
Land cover 2016


Muculoene
Muecate
Rapale
7 De Abril
Cidade De Nampula
Namaita
Anchilo
Corrane
Calipo

Land cover 2021


Muculoene
Muecate
Rapale
7 De Abril
Cidade De Nampula
Namaita
Anchilo
Corrane
Calipo

Drought in 2021


Muculoene
Muecate
Rapale
7 De Abril
Cidade De Nampula
Namaita
Anchilo
Corrane
Calipo

Forest area in 2016 (sq km)	19
Forest area in 2021 (sq km)	9
Net biomass change in Mg (2016 - 2021)	-100272
Agricultural area in 2016 (sq km)	101
Agricultural area in 2021 (sq km)	182
Drought (% of agricultural area in 2021)	71

Legend

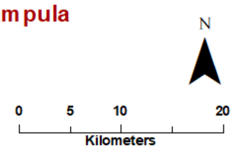
☐ Admin boundary (level 3)	■ Mangrove
— Waterways	■ Mecrusse
Land cover	■ Mountain forest
■ Bare ground	■ Non-tree cultivation
■ Flooded herbaceous area	■ Prairie
■ Forest deciduous closed	■ Prairie tree
■ Forest deciduous open	■ Rock without vegetation
■ Forest evergreen closed	■ Tree cultivation
■ Forest evergreen open	■ Urban area
■ Forest plantation	■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

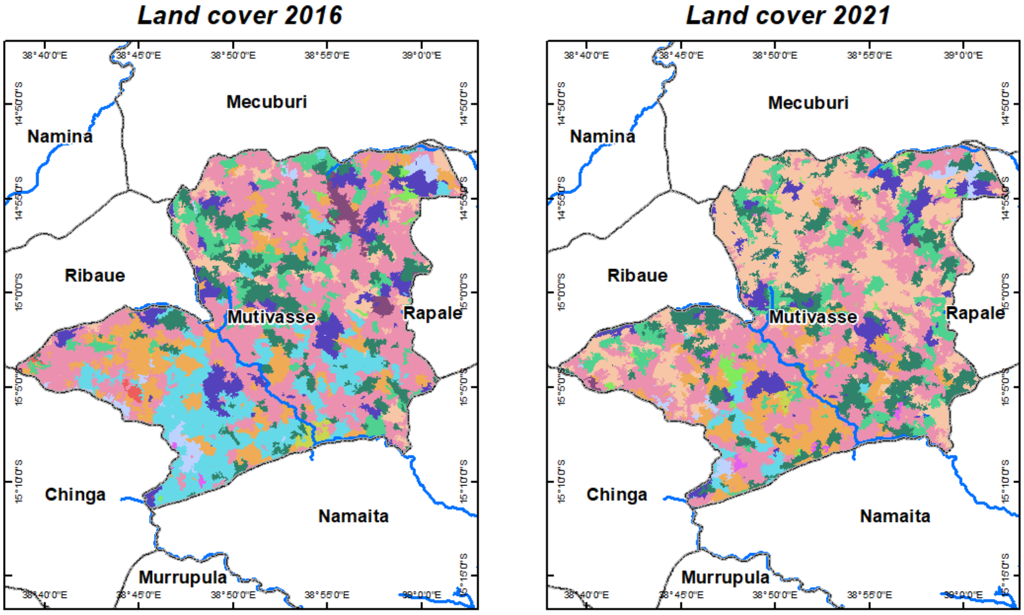
Posto
Mutivasse

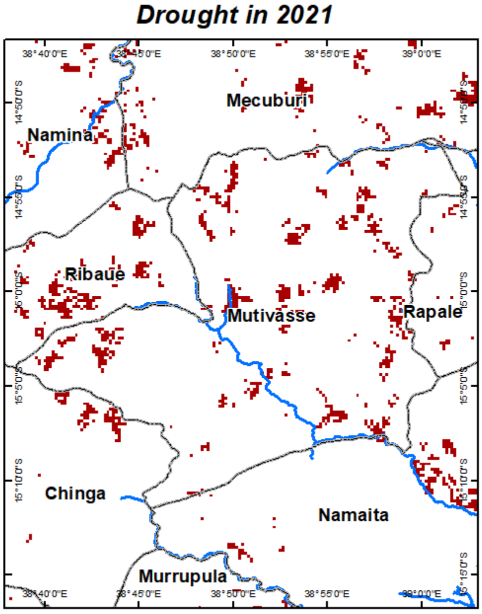
District
Rapale

Province
Nampula


N
0
5
10
20
Kilometers

Total population 31127
Total area (sq km) 810


Land cover 2016
Land cover 2021
38°40'0"E
38°45'0"E
38°50'0"E
38°55'0"E
39°0'0"E
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
Mecuburi
Namina
Ribaue
Mutivasse
Rapale
Chinga
Namaita
Murrupula


Drought in 2021
38°40'0"E
38°45'0"E
38°50'0"E
38°55'0"E
39°0'0"E
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
Mecuburi
Namina
Ribaue
Mutivasse
Rapale
Chinga
Namaita
Murrupula

Forest area in 2016 (sq km)	241
Forest area in 2021 (sq km)	109
Net biomass change in Mg (2016 - 2021)	-1178163
Agricultural area in 2016 (sq km)	59
Agricultural area in 2021 (sq km)	73
Drought (% of agricultural area in 2021)	70

Legend

- ☐ Admin boundary (level 3)
- — Waterways

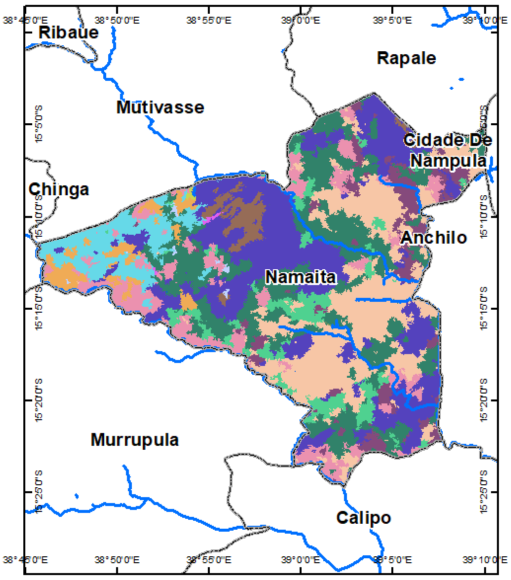
Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Namaita	**Rapale**	**Nampula**

Total population	118352
Total area (sq km)	822


Land cover 2016
Ribaue
Rapale
Mutivasse
Cidade De Nampula
Chinga
Anchilo
Namaita
Murrupula
Calipo
38°45'0"E
38°50'0"E
38°55'0"E
39°0'0"E
39°5'0"E
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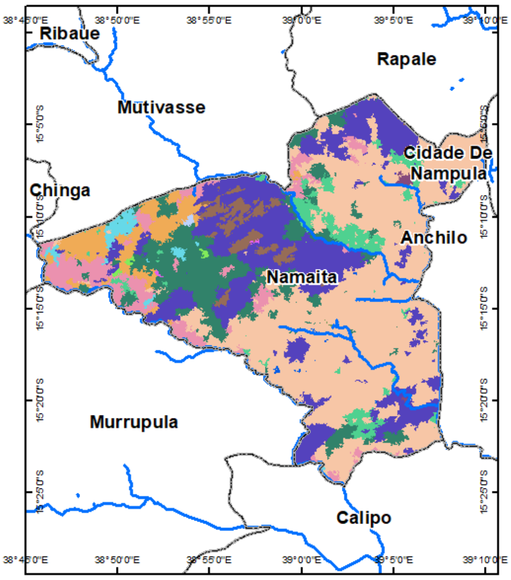
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S


Land cover 2021
N
0 5 10 20
Kilometers
Ribaue
Rapale
Mutivasse
Cidade De Nampula
Chinga
Anchilo
Namaita
Murrupula
Calipo
38°45'0"E
38°50'0"E
38°55'0"E
39°0'0"E
39°5'0"E
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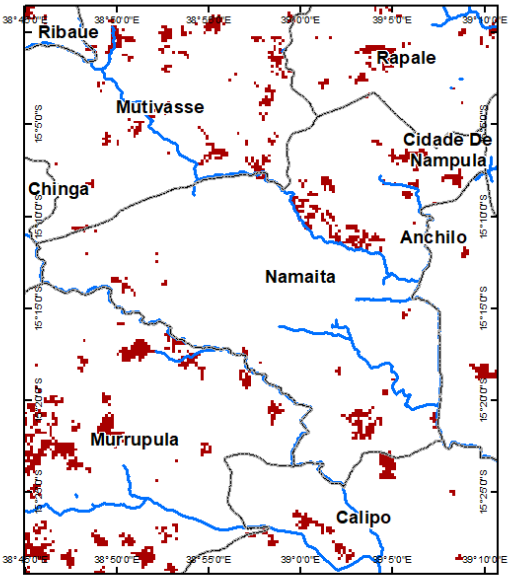
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S


Drought in 2021
Ribaue
Rapale
Mutivasse
Cidade De Nampula
Chinga
Anchilo
Namaita
Murrupula
Calipo
38°45'0"E
38°50'0"E
38°55'0"E
39°0'0"E
39°5'0"E
39°10'0"E
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S

Forest area in 2016 (sq km)	98
Forest area in 2021 (sq km)	73
Net biomass change in Mg (2016 - 2021)	-209083
Agricultural area in 2016 (sq km)	48
Agricultural area in 2021 (sq km)	39
Drought (% of agricultural area in 2021)	78

Legend

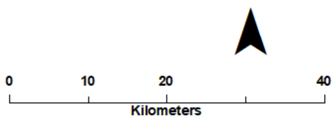
☐ Admin boundary (level 3)
— Waterways

Land cover

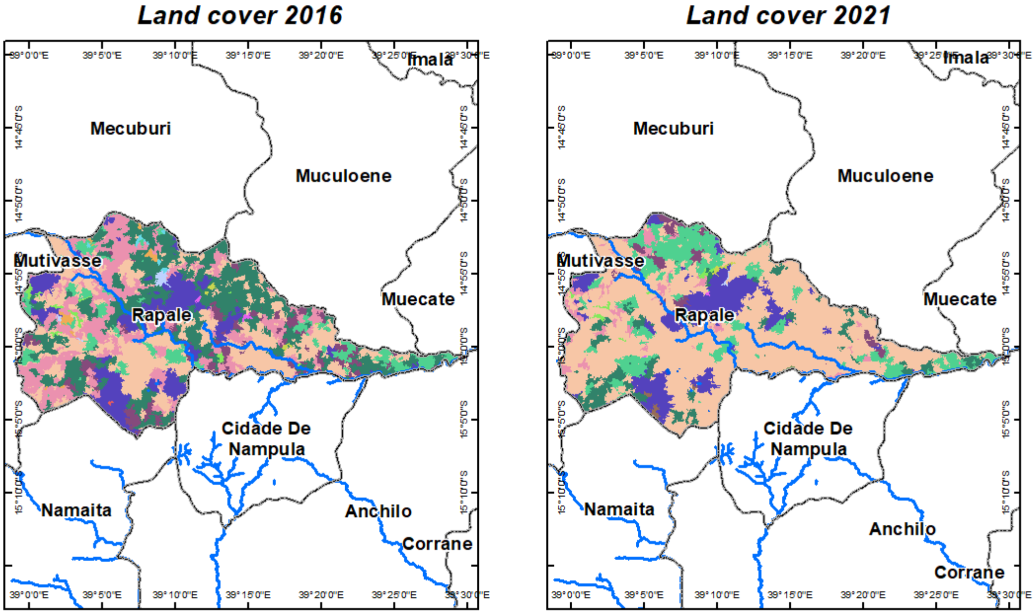
■ Bare ground
■ Flooded herbaceous area
■ Forest deciduous closed
■ Forest deciduous open
■ Forest evergreen closed
■ Forest evergreen open
■ Forest plantation
■ Mangrove
■ Mecrusse
■ Mountain forest
■ Non-tree cultivation
■ Prairie
■ Prairie tree
■ Rock without vegetation
■ Tree cultivation
■ Urban area
■ Water body

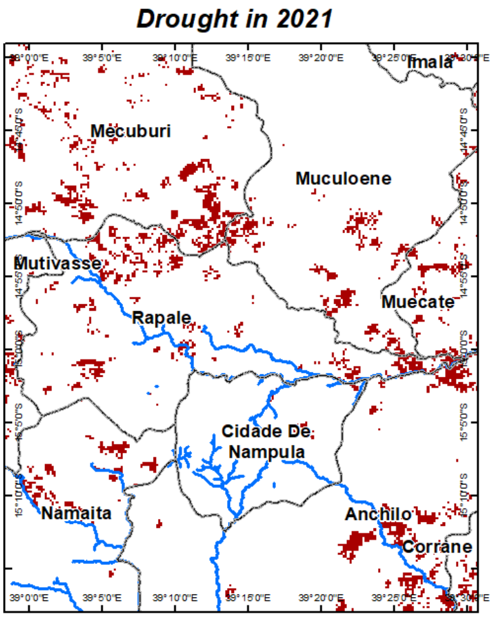
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Rapale	**Rapale**	**Nampula**


N
0
10
20
40
Kilometers

Total population	86529
Total area (sq km)	713


Land cover 2016
Land cover 2021
Mecuburi
Muculoene
Imala
Mutivasse
Rapale
Muecate
Cidade De Nampula
Namaita
Anchilo
Corrane
39°0'0"E
39°5'0"E
39°10'0"E
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S


Drought in 2021
Mecuburi
Muculoene
Imala
Mutivasse
Rapale
Muecate
Cidade De Nampula
Namaita
Anchilo
Corrane
39°0'0"E
39°5'0"E
39°10'0"E
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
14°45'0"S
14°50'0"S
14°55'0"S
15°0'0"S
15°5'0"S
15°10'0"S

Forest area in 2016 (sq km)	12
Forest area in 2021 (sq km)	4
Net biomass change in Mg (2016 - 2021)	-76612
Agricultural area in 2016 (sq km)	50
Agricultural area in 2021 (sq km)	97
Drought (% of agricultural area in 2021)	54

Legend

☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground	🟩 Mangrove
🟩 Flooded herbaceous area	⬛ Mecrusse
🟦 Forest deciduous closed	🟫 Mountain forest
🟧 Forest deciduous open	🟩 Non-tree cultivation
🟪 Forest evergreen closed	🟨 Prairie
🟦 Forest evergreen open	🟥 Prairie tree
🟥 Forest plantation	🟪 Rock without vegetation
	🟩 Tree cultivation
	🟧 Urban area
	🟦 Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

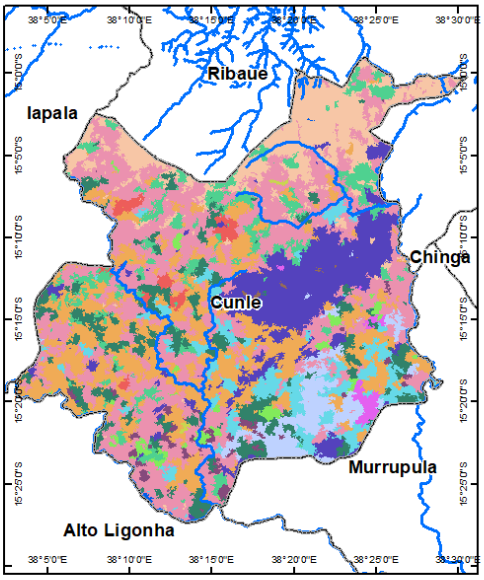
Posto	District	Province
Cunle	**Ribaue**	**Nampula**

Total population	45120
Total area (sq km)	1424

N

0 5 10 20
Kilometers

Land cover 2016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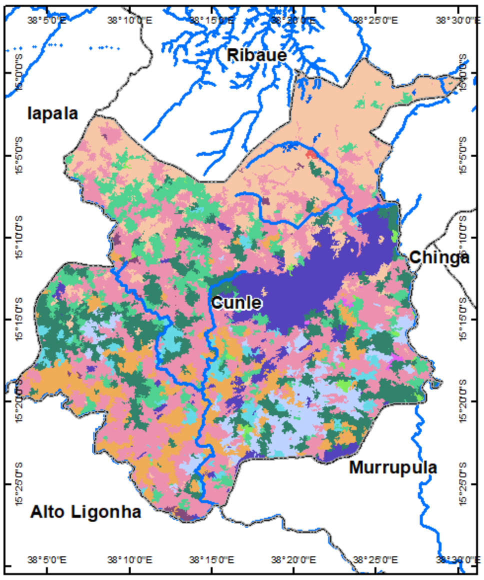
38°10'0"E
38°15'0"E
38°20'0"E
38°25'0"E
38°30'0"E
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
Ribaue
Iapala
Chinga
Cunle
Murrupula
Alto Ligonha

Land cover 2021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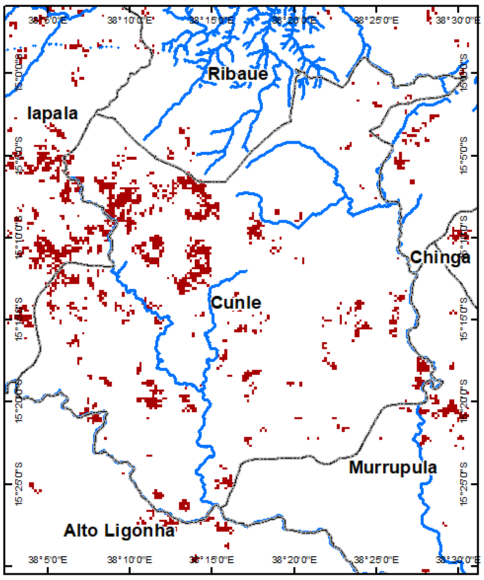
38°10'0"E
38°15'0"E
38°20'0"E
38°25'0"E
38°30'0"E
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
Ribaue
Iapala
Chinga
Cunle
Murrupula
Alto Ligonha

Drought in 2021


38°5'0"E
38°10'0"E
38°15'0"E
38°20'0"E
38°25'0"E
38°30'0"E
15°0'0"S
15°5'0"S
15°10'0"S
15°15'0"S
15°20'0"S
15°25'0"S
Ribaue
Iapala
Chinga
Cunle
Murrupula
Alto Ligonha

Forest area in 2016 (sq km)	435
Forest area in 2021 (sq km)	258
Net biomass change in Mg (2016 - 2021)	-1515060

Agricultural area in 2016 (sq km)	96
Agricultural area in 2021 (sq km)	135
Drought (% of agricultural area in 2021)	70

Legend

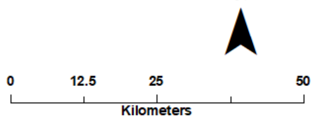
☐ Admin boundary (level 3)
— Waterways

Land cover

🟪 Bare ground
🟩 Flooded herbaceous area
🟦 Forest deciduous closed
🟧 Forest deciduous open
🟪 Forest evergreen closed
🟦 Forest evergreen open
🟥 Forest plantation
🟩 Mangrove
⬛ Mecrusse
🟫 Mountain forest
🟩 Non-tree cultivation
🟨 Prairie
🟥 Prairie tree
🟪 Rock without vegetation
🟩 Tree cultivation
🟧 Urban area
🟦 Water body

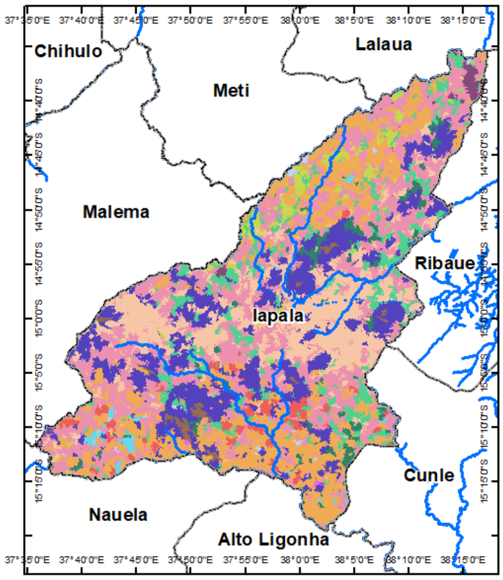
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Iapala	**Ribaue**	**Nampula**

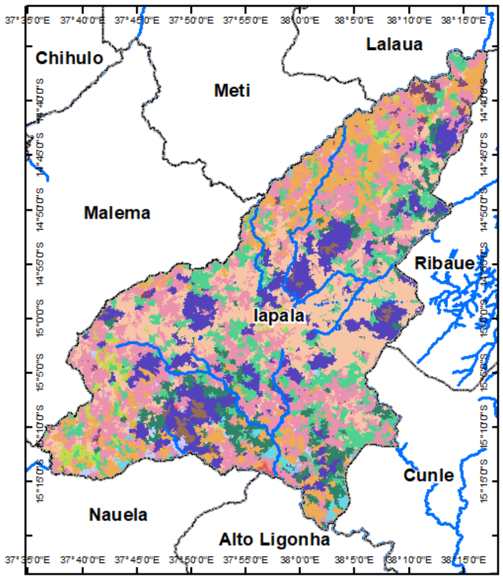

N
0
12.5
25
50
Kilometers

Total population	135324
Total area (sq km)	2623

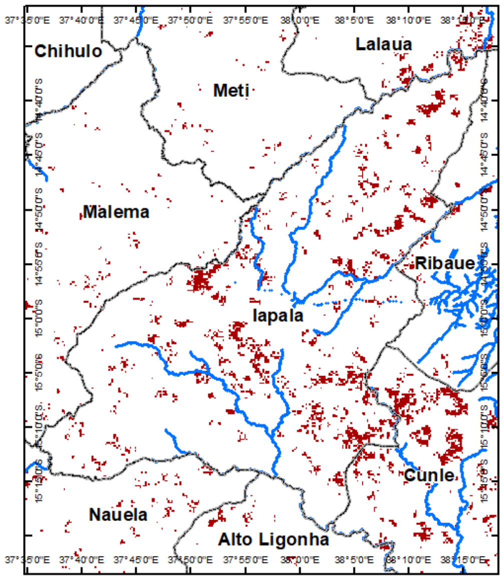
Land cover 2016


Chihulo
Lalaua
Meti
Malema
Ribaue
Iapala
Cunle
Nauela
Alto Ligonha

Land cover 2021


Chihulo
Lalaua
Meti
Malema
Ribaue
Iapala
Cunle
Nauela
Alto Ligonha

Drought in 2021


Chihulo
Lalaua
Meti
Malema
Ribaue
Iapala
Cunle
Nauela
Alto Ligonha

Forest area in 2016 (sq km)	637
Forest area in 2021 (sq km)	438
Net biomass change in Mg (2016 - 2021)	-1717798
Agricultural area in 2016 (sq km)	205
Agricultural area in 2021 (sq km)	336
Drought (% of agricultural area in 2021)	58

Legend

- ▭ Admin boundary (level 3)
- — Waterways

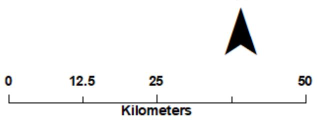
Land cover

- 🟪 Bare ground
- 🟩 Flooded herbaceous area
- 🟦 Forest deciduous closed
- 🟧 Forest deciduous open
- 🟪 Forest evergreen closed
- 🟦 Forest evergreen open
- 🟥 Forest plantation
- 🟩 Mangrove
- ⬛ Mecrusse
- 🟫 Mountain forest
- 🟩 Non-tree cultivation
- 🟨 Prairie
- 🟥 Prairie tree
- 🟪 Rock without vegetation
- 🟩 Tree cultivation
- 🟧 Urban area
- 🟦 Water body

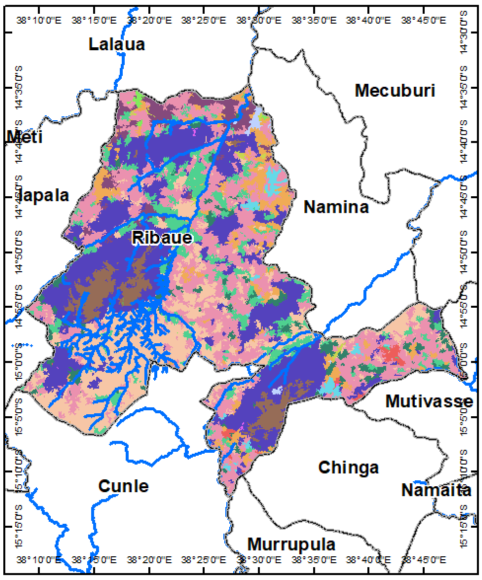
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Posto	District	Province
Ribaue	**Ribaue**	**Nampula**

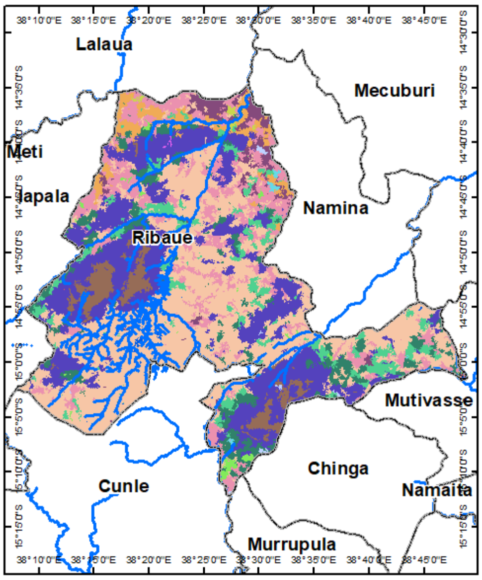
Total population	127787
Total area (sq km)	2201


N
0
12.5
25
50
Kilometers

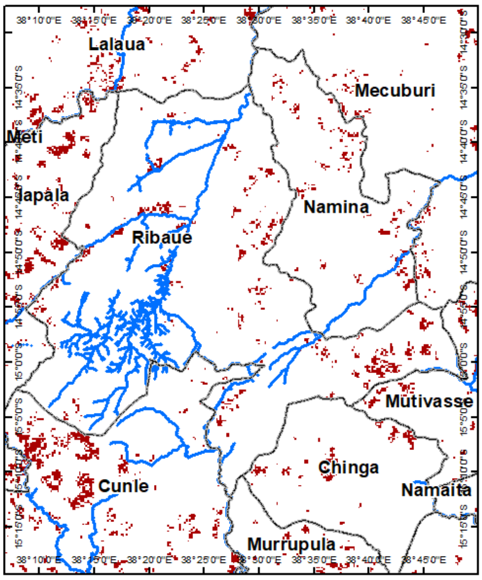
Land cover 2016


Lalaua
Mecuburi
Meti
Iapala
Ribaue
Namina
Mutivasse
Chinga
Cunle
Namaita
Murrupula

Land cover 2021


Lalaua
Mecuburi
Meti
Iapala
Ribaue
Namina
Mutivasse
Chinga
Cunle
Namaita
Murrupula

Drought in 2021


Lalaua
Mecuburi
Meti
Iapala
Ribaue
Namina
Mutivasse
Chinga
Cunle
Namaita
Murrupula

Forest area in 2016 (sq km)	266
Forest area in 2021 (sq km)	174
Net biomass change in Mg (2016 - 2021)	-855269
Agricultural area in 2016 (sq km)	207
Agricultural area in 2021 (sq km)	138
Drought (% of agricultural area in 2021)	51

Legend

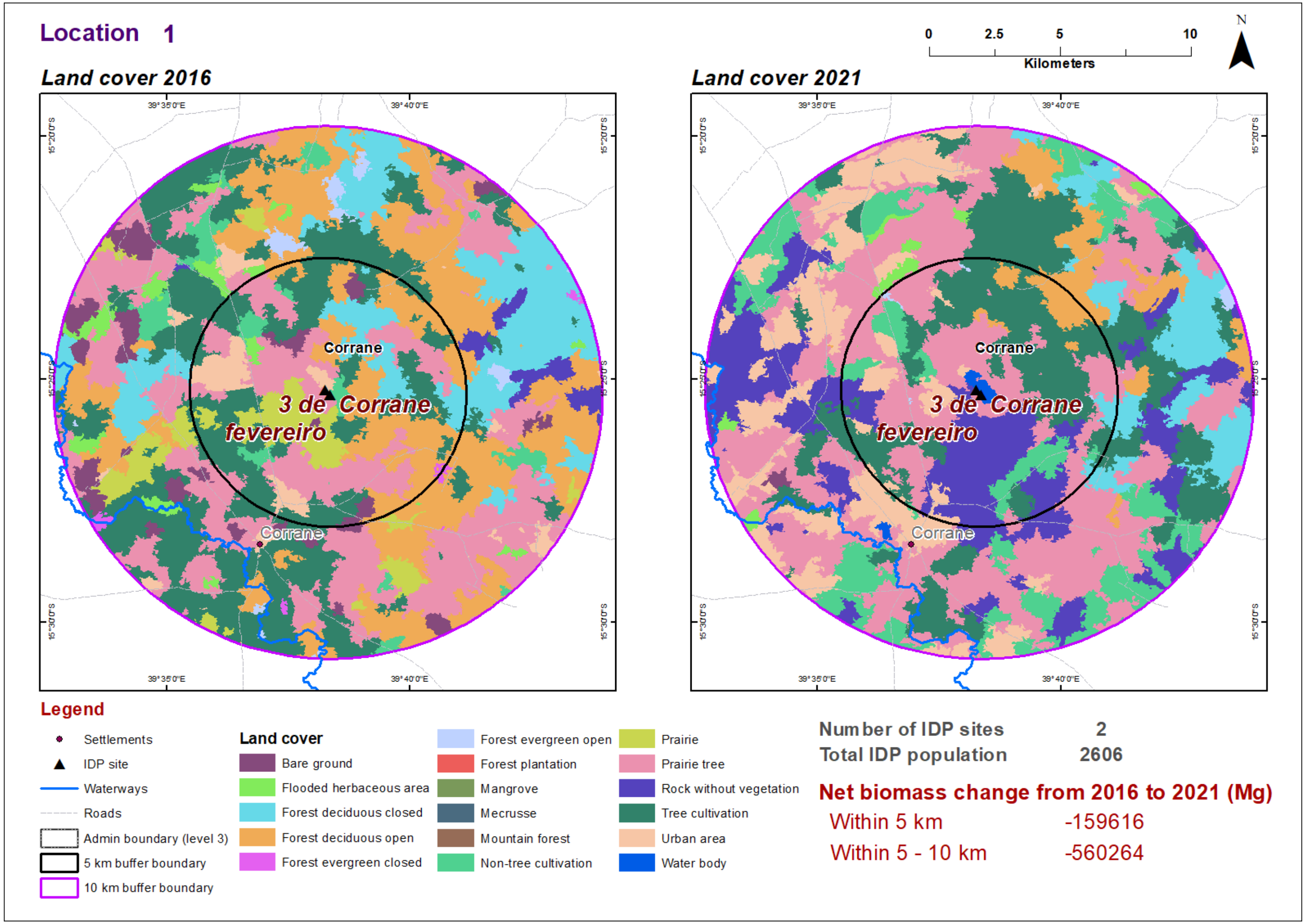
- ☐ Admin boundary (level 3)
- — Waterways

Land cover

- ■ Bare ground
- ■ Flooded herbaceous area
- ■ Forest deciduous closed
- ■ Forest deciduous open
- ■ Forest evergreen closed
- ■ Forest evergreen open
- ■ Forest plantation
- ■ Mangrove
- ■ Mecrusse
- ■ Mountain forest
- ■ Non-tree cultivation
- ■ Prairie
- ■ Prairie tree
- ■ Rock without vegetation
- ■ Tree cultivation
- ■ Urban area
- ■ Water body

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Appendix 03. Change in biomass between 2016 to 2021 by internally displaced person(s) settlements

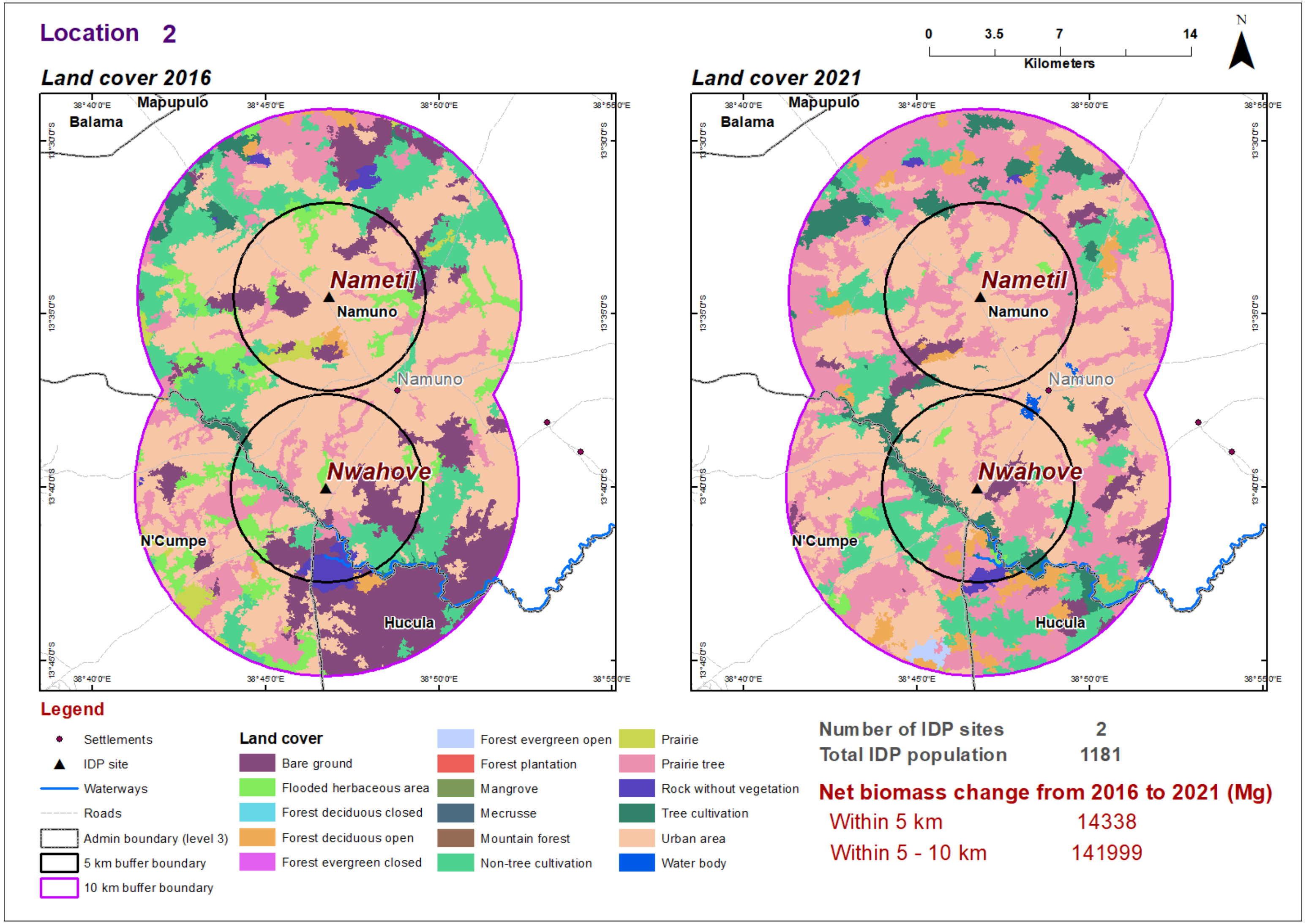

Location 1
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
39°35'0"E
39°40'0"E
15°20'0"S
15°25'0"S
15°30'0"S
Corrane
3 de fevereiro
Corrane
Corrane
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	2606

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-159616
Within 5 - 10 km	-560264

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

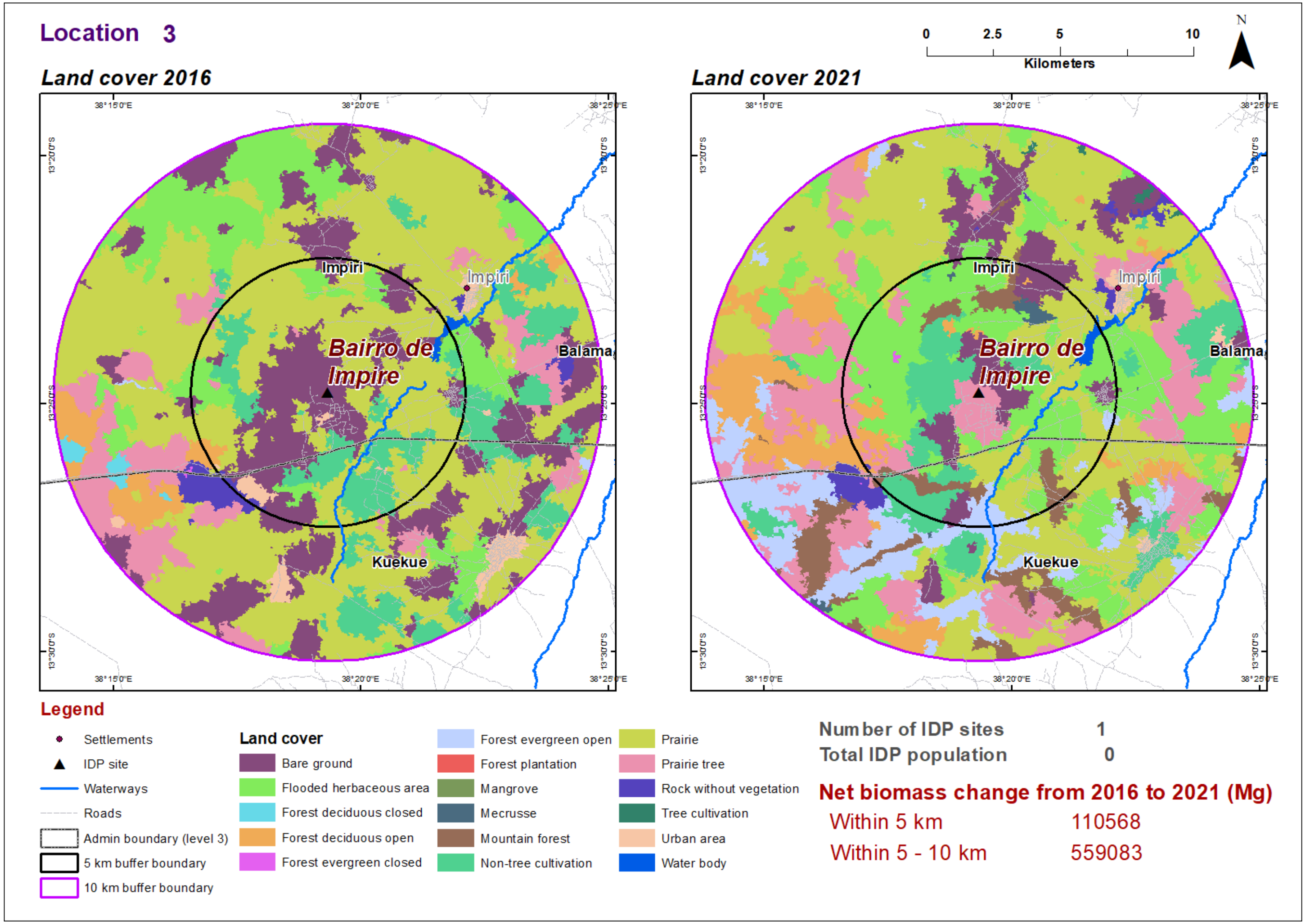

Location 2
Land cover 2016
Land cover 2021
0
3.5
7
14
Kilometers
N
Mapupulo
Balama
Nametil
Namuno
Namuno
Nwahove
N'Cumpe
Hucula
38°40'0"E
38°45'0"E
38°50'0"E
38°55'0"E
13°30'0"S
13°35'0"S
13°40'0"S
13°45'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	1181

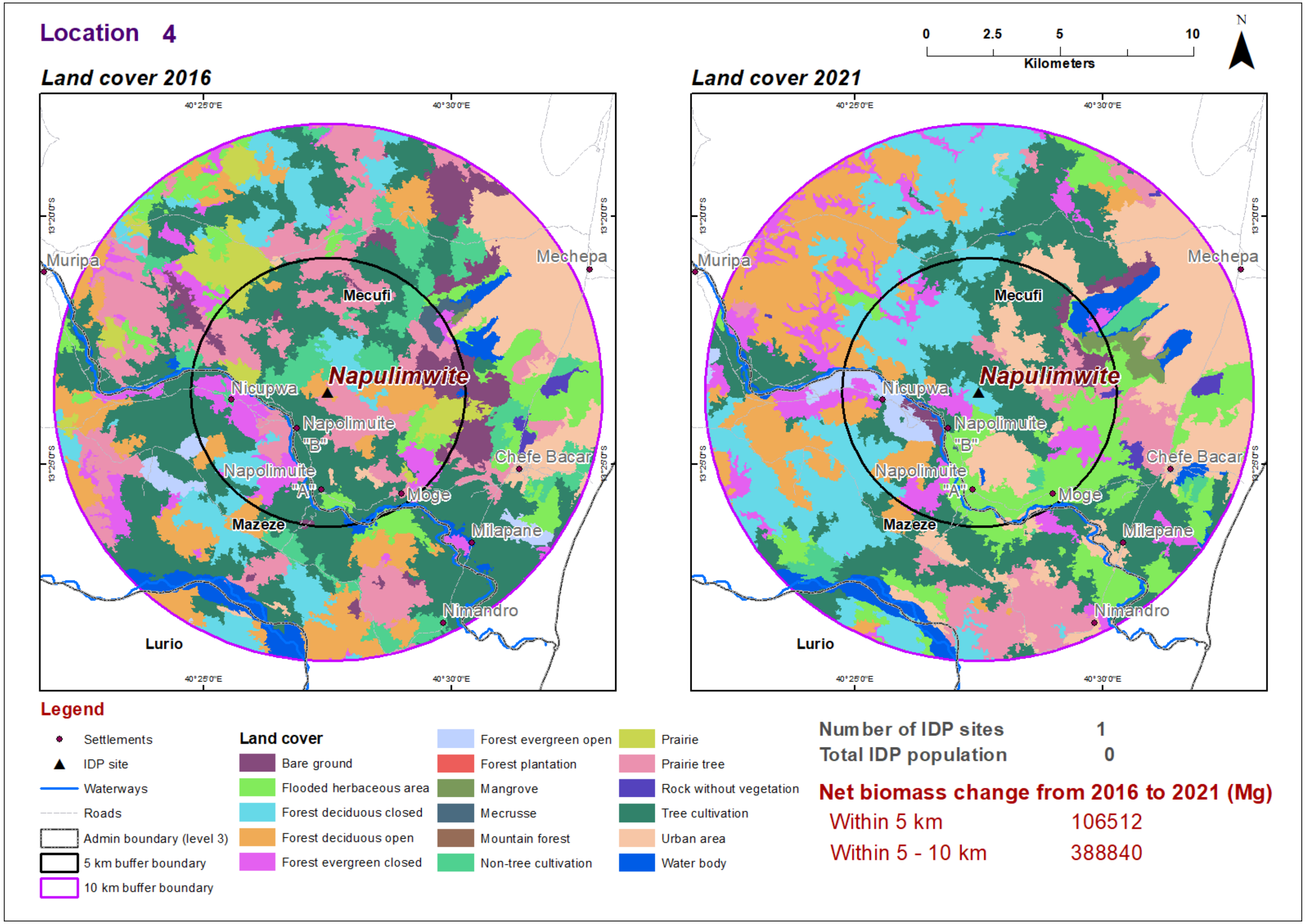
Net biomass change from 2016 to 2021 (Mg)

Within 5 km	14338
Within 5 - 10 km	141999

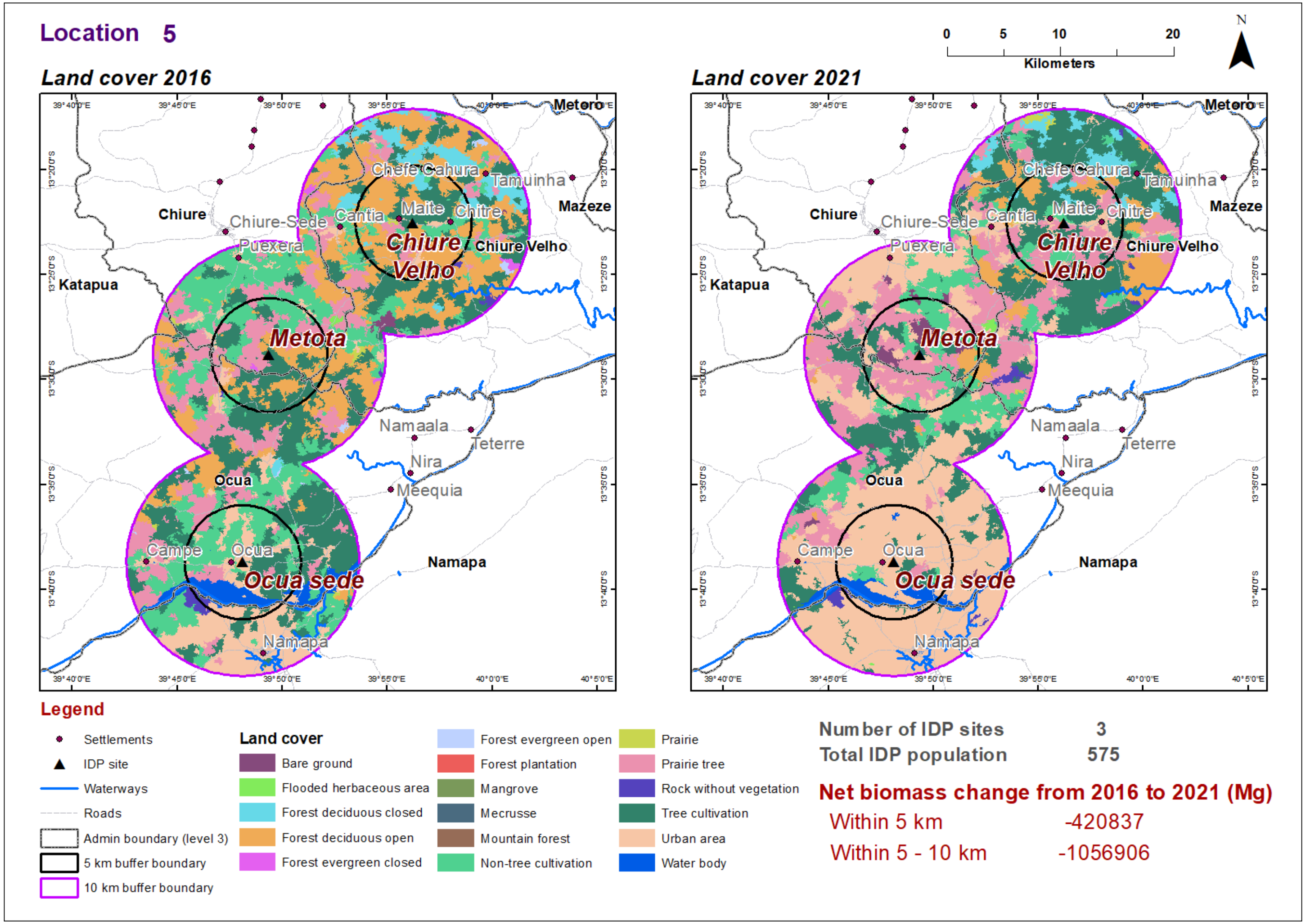
Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Location 3
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
38°15'0"E
38°20'0"E
38°25'0"E
13°20'0"S
13°25'0"S
13°30'0"S
Impiri
Impiri
Bairro de Impire
Balama
Kuekue
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 1
Total IDP population 0
Net biomass change from 2016 to 2021 (Mg)
Within 5 km 110568
Within 5 - 10 km 559083

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Location 4
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
40°25'0"E
40°30'0"E
13°20'0"S
13°25'0"S
Muripa
Mechepa
Mecufi
Napulimwite
Nicupwa
Napolimuite "B"
Napolimuite "A"
Chefe Bacar
Moge
Mazeze
Milapane
Nimandro
Lurio
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 1
Total IDP population 0
Net biomass change from 2016 to 2021 (Mg)
Within 5 km 106512
Within 5 - 10 km 388840

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

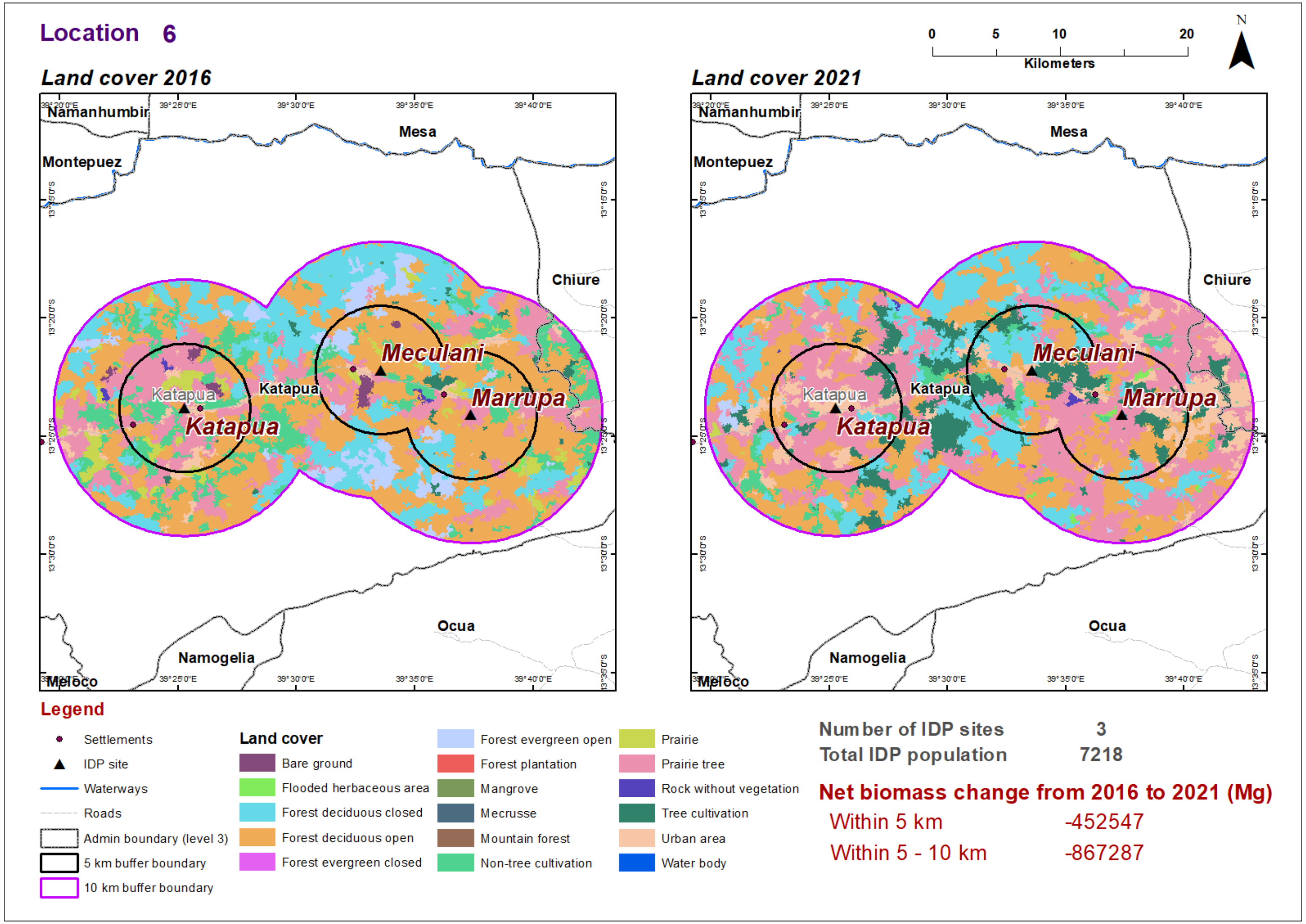

Location 5
Land cover 2016
Land cover 2021
0 5 10 20
Kilometers
N
Metoro
Chefe Cahura
Tamuinha
Mazeze
Chiure
Chiure-Sede
Cantia
Maite
Chitre
Chiure Velho
Puexera
Katapua
Metota
Namaala
Teterre
Nira
Meequia
Ocua
Campe
Ocua sede
Namapa
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	3
Total IDP population	575

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-420837
Within 5 - 10 km	-1056906

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

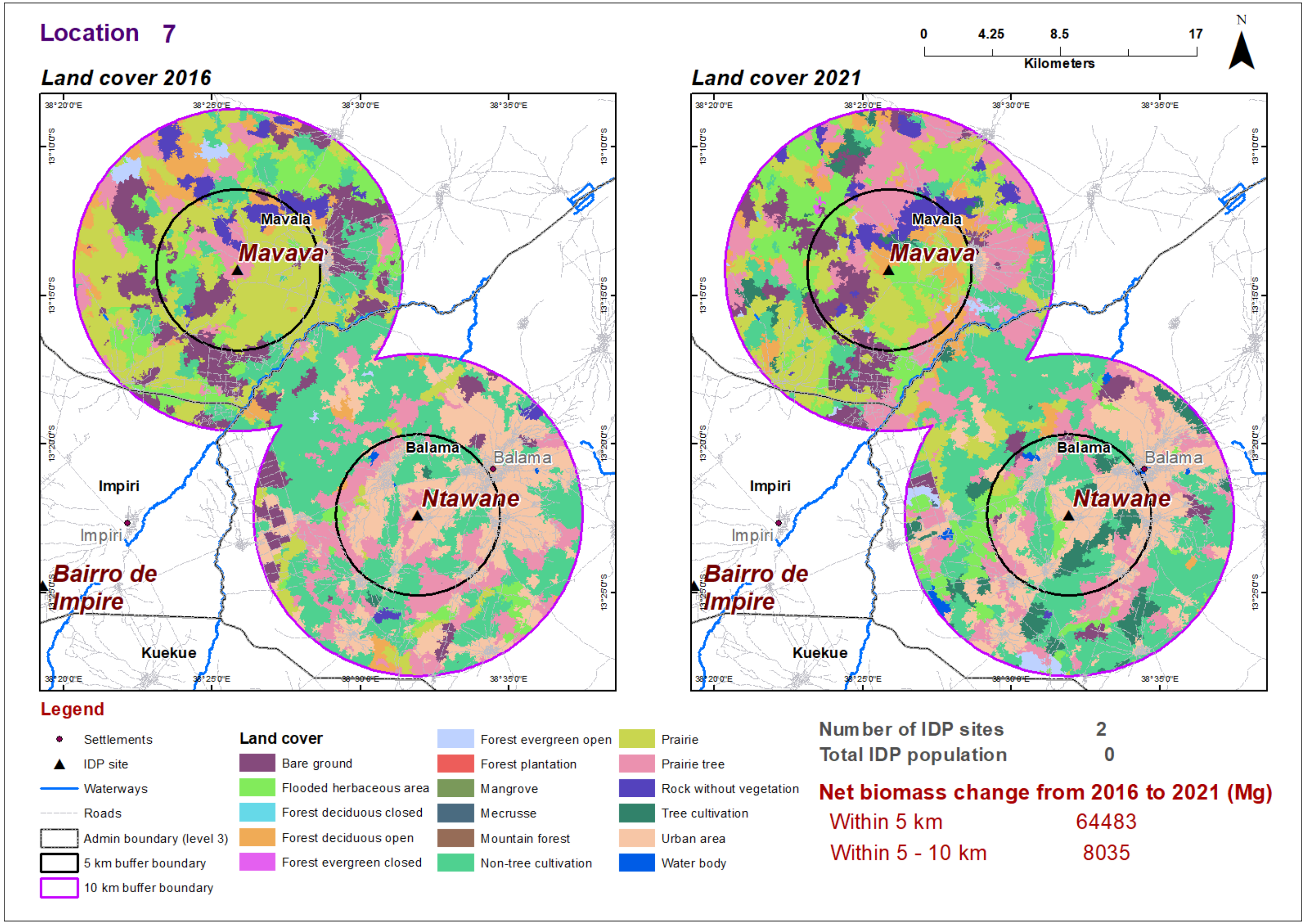

Location 6
Land cover 2016
Land cover 2021
0 5 10 20
Kilometers
N
Namanhumbir
Montepuez
Mesa
Chiure
Meculani
Marrupa
Katapua
Ocua
Namogelia
Meloco
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
39°40'0"E
13°15'0"S
13°20'0"S
13°25'0"S
13°30'0"S
13°35'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	3
Total IDP population	7218

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-452547
Within 5 - 10 km	-867287

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

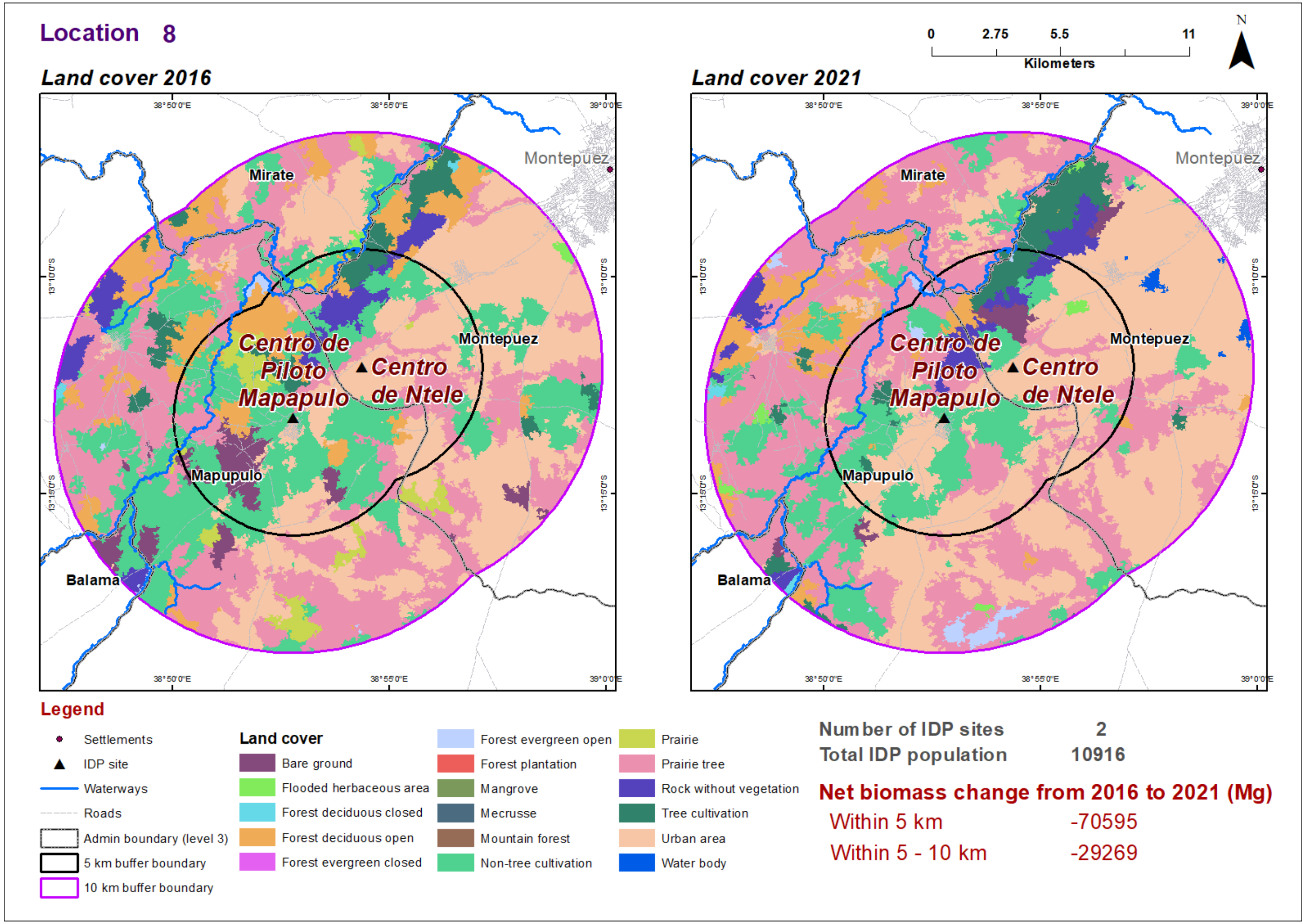

Location 7
Land cover 2016
Land cover 2021
0
4.25
8.5
17
Kilometers
N
Mavala
Mavava
Balama
Ntawane
Impiri
Bairro de Impire
Kuekue
38°20'0"E
38°25'0"E
38°30'0"E
38°35'0"E
13°10'0"S
13°15'0"S
13°20'0"S
13°25'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	0

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	64483
Within 5 - 10 km	8035

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

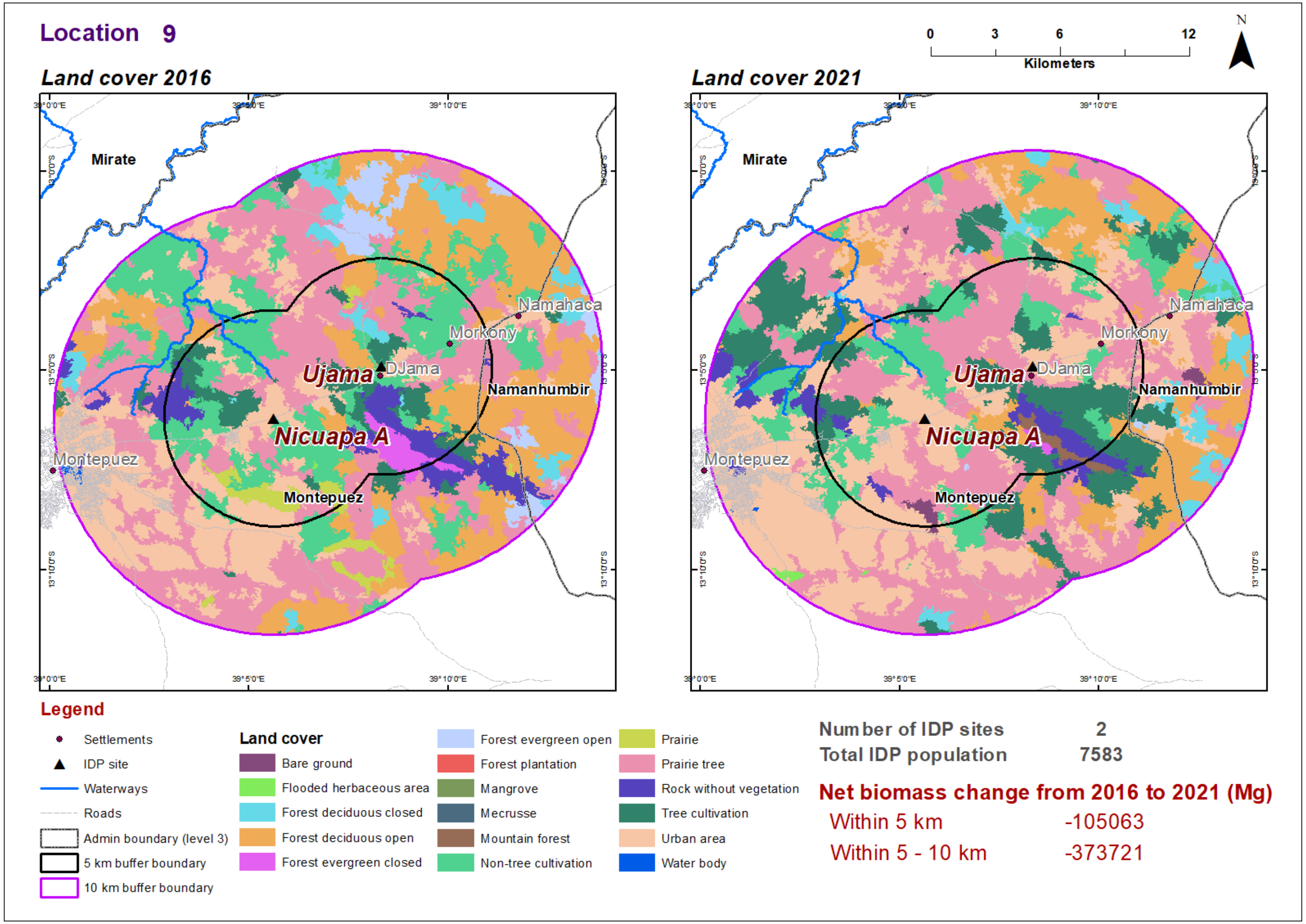

Location 8
Land cover 2016
Land cover 2021
0
2.75
5.5
11
Kilometers
N
Mirate
Montepuez
Centro de Piloto Mapapulo
Centro de Ntele
Mapupulo
Balama
38°50'0"E
38°55'0"E
39°0'0"E
13°10'0"S
13°15'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	10916

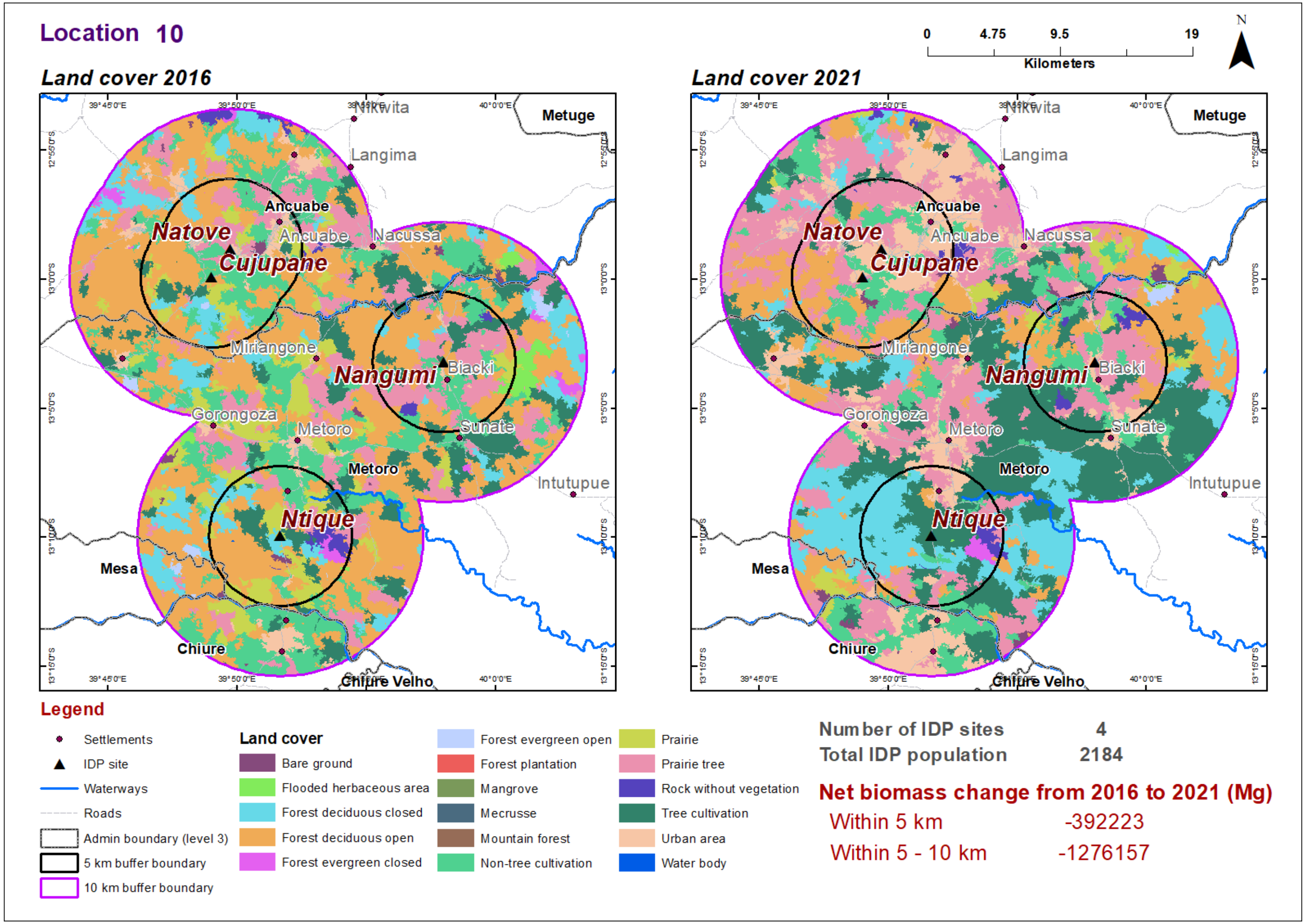
Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-70595
Within 5 - 10 km	-29269

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

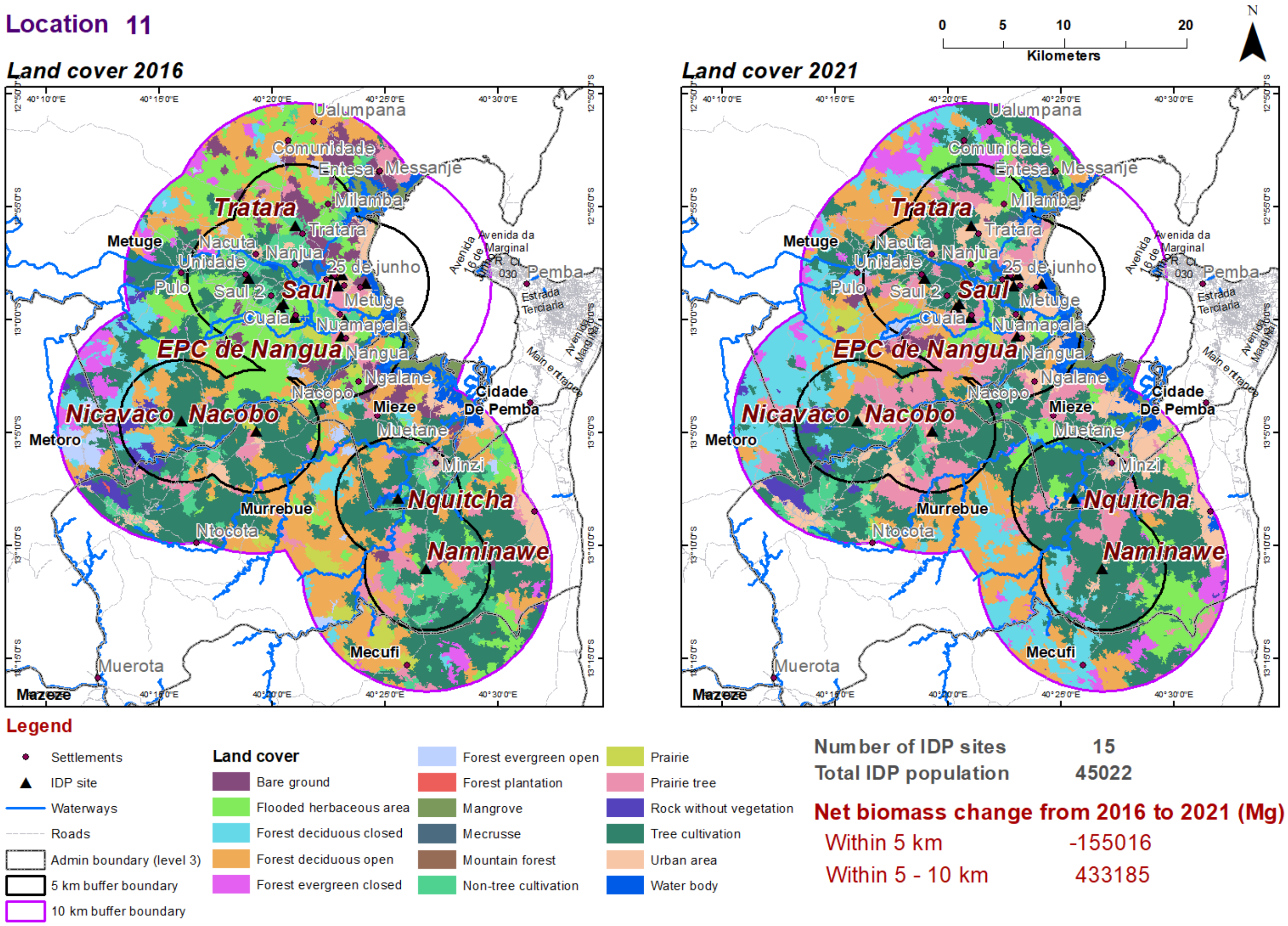

Location 9
Land cover 2016
Land cover 2021
0 3 6 12
Kilometers
N
Mirate
Namahaca
Morkony
Ujama
DJama
Namanhumbir
Nicuapa A
Montepuez
Montepuez
39°0'0"E
39°5'0"E
39°10'0"E
13°0'0"S
13°5'0"S
13°10'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 2
Total IDP population 7583
Net biomass change from 2016 to 2021 (Mg)
Within 5 km -105063
Within 5 - 10 km -373721

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Location 10
Land cover 2016
Land cover 2021
0
4.75
9.5
19
Kilometers
N
Natove
Cujupane
Nangumi
Ntique
Ancuabe
Nacussa
Nikwita
Langima
Metuge
Miriangone
Biacki
Gorongoza
Metoro
Sunate
Intutupue
Mesa
Chiure
Chiure Velho
39°45'0"E
39°50'0"E
40°0'0"E
12°55'0"S
13°0'0"S
13°5'0"S
13°10'0"S
13°15'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 4
Total IDP population 2184
Net biomass change from 2016 to 2021 (Mg)
Within 5 km -392223
Within 5 - 10 km -1276157

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Location 11

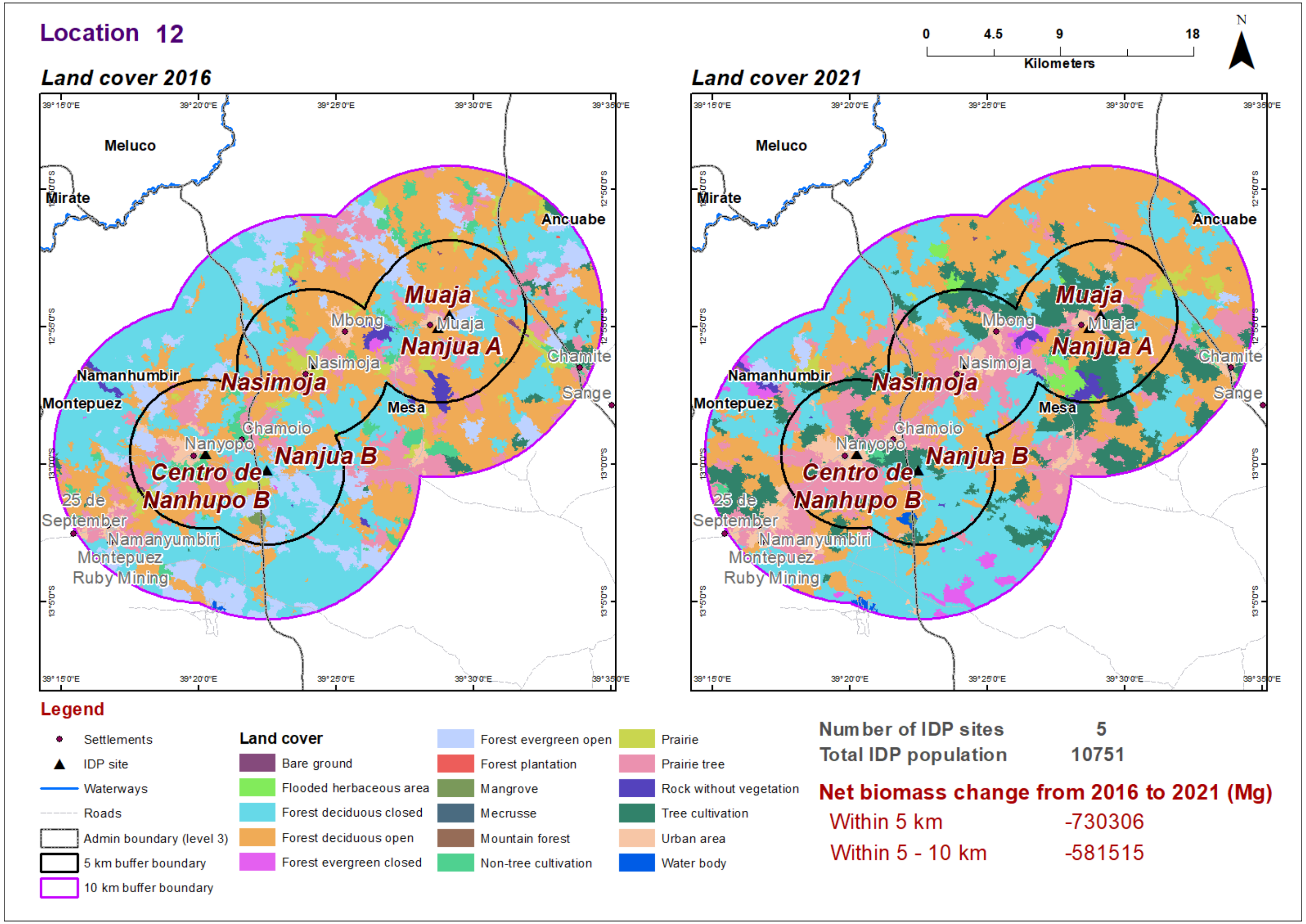

Land cover 2016
Land cover 2021
0
5
10
20
Kilometers
N
Ualumpana
Comunidade
Entesa
Messanje
Milamba
Tratara
Metuge
Nacuta
Nanjua
Unidade
25 de junho
Pulo
Saul 2
Saul
Cuaia
Nuamapala
EPC de Nangua
Nangua
Ngalane
Nacopo
Cidade De Pemba
Pemba
Nicavaco
Nacobo
Mieze
Muetane
Metoro
Minzi
Nquitcha
Murrebue
Ntocota
Naminawe
Mecufi
Muerota
Mazeze
Avenida da Marginal
Avenida 16 de Junho
R. Cl. 030
Estrada Terciaria
Main entrance
40°10'0"E
40°15'0"E
40°20'0"E
40°25'0"E
40°30'0"E
12°50'0"S
12°55'0"S
13°0'0"S
13°5'0"S
13°10'0"S
13°15'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	15
Total IDP population	45022

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-155016
Within 5 - 10 km	433185

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

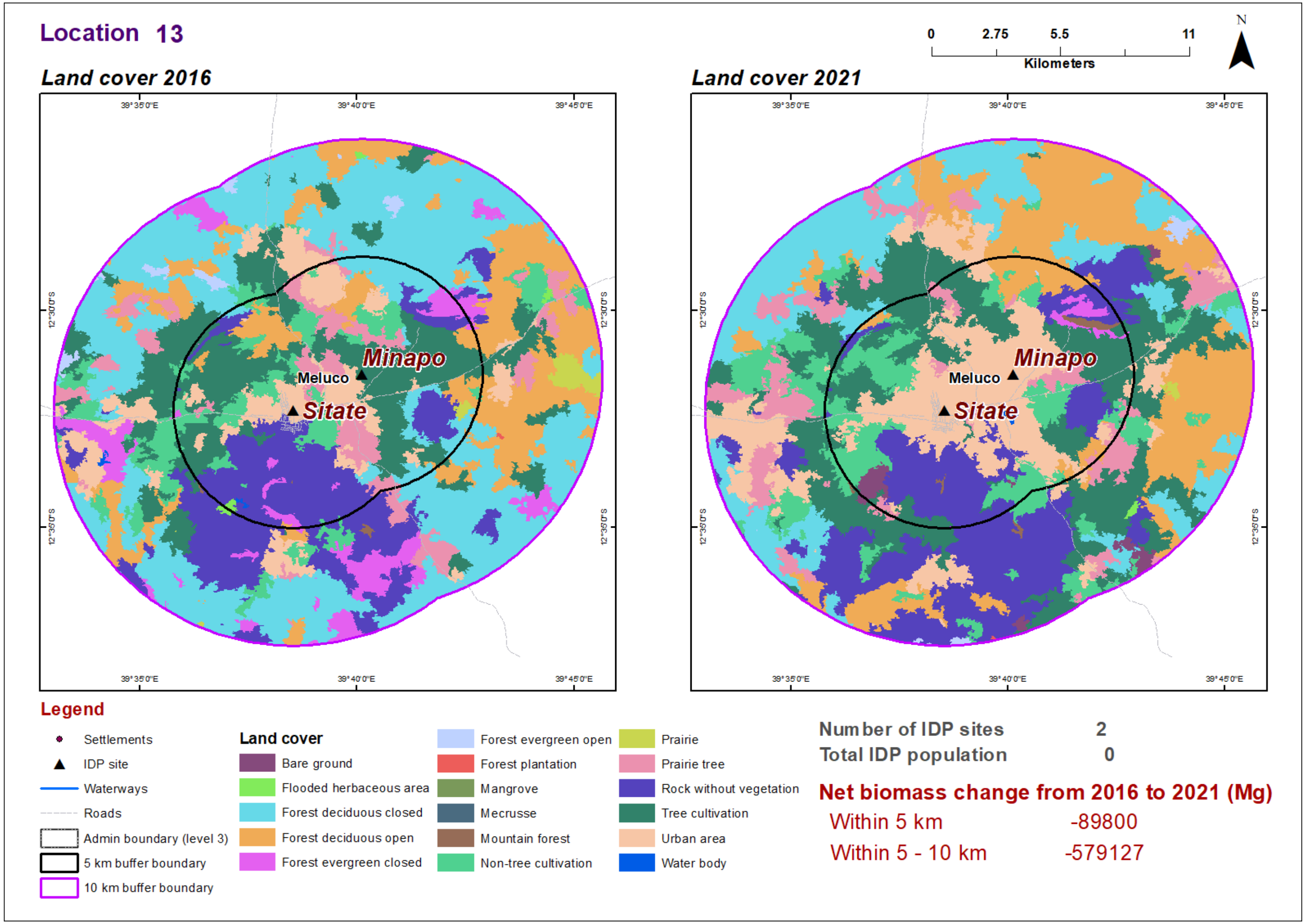

Location 12
Land cover 2016
Land cover 2021
0
4.5
9
18
Kilometers
N
Meluco
Mirate
Ancuabe
Muaja
Mbong
Nanjua A
Nasimoja
Chamite
Namanhumbir
Sange
Montepuez
Mesa
Chamoio
Nanyopo
Nanjua B
Centro de
Nanhupo B
25 de
September
Namanyumbiri
Montepuez
Ruby Mining
39°15'0"E
39°20'0"E
39°25'0"E
39°30'0"E
39°35'0"E
12°50'0"S
12°55'0"S
13°0'0"S
13°5'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	5
Total IDP population	10751

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-730306
Within 5 - 10 km	-581515

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

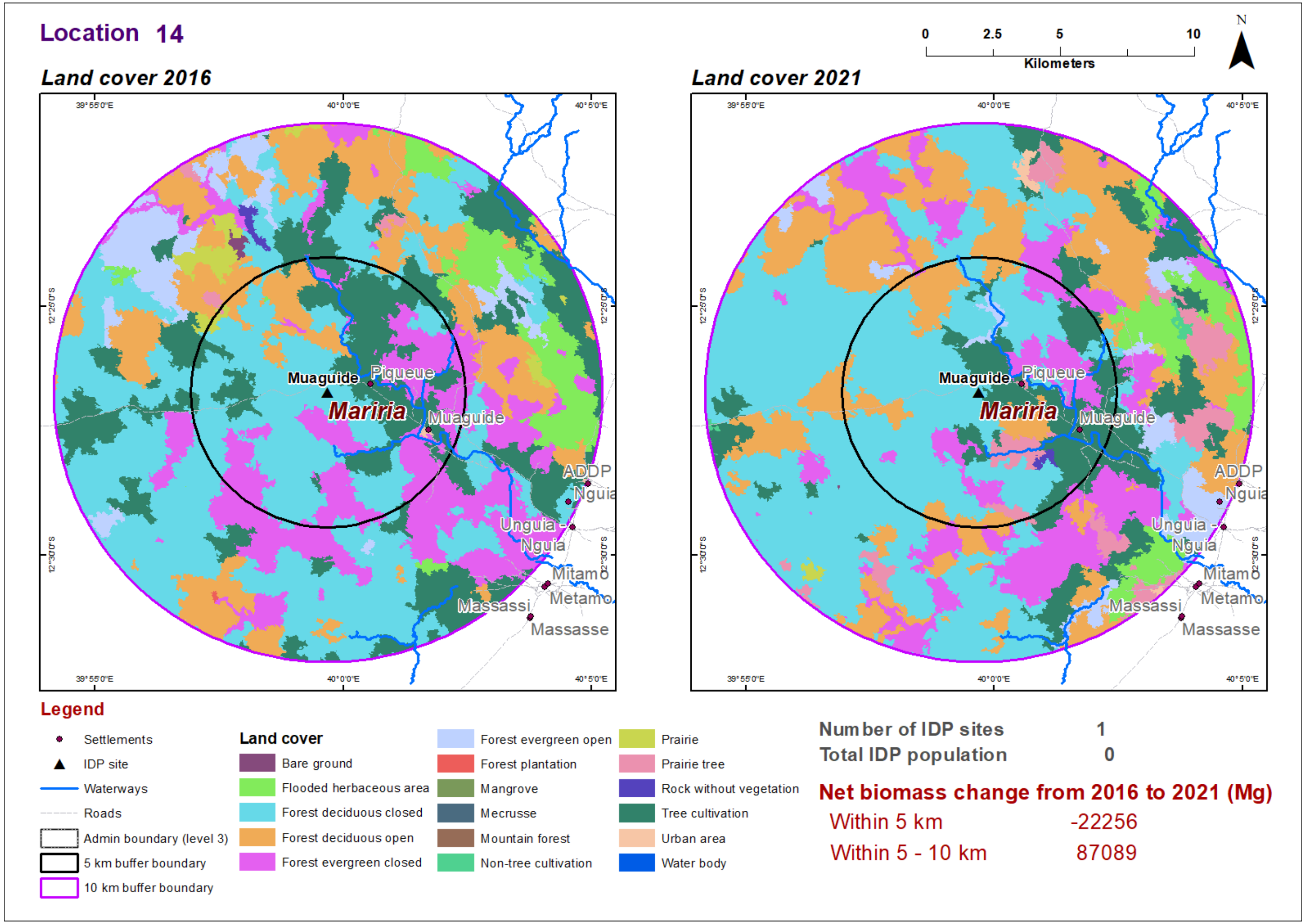

Location 13
Land cover 2016
Land cover 2021
0
2.75
5.5
11
Kilometers
N
Minapo
Meluco
Sitate
39°35'0"E
39°40'0"E
39°45'0"E
12°30'0"S
12°35'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	0

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-89800
Within 5 - 10 km	-579127

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

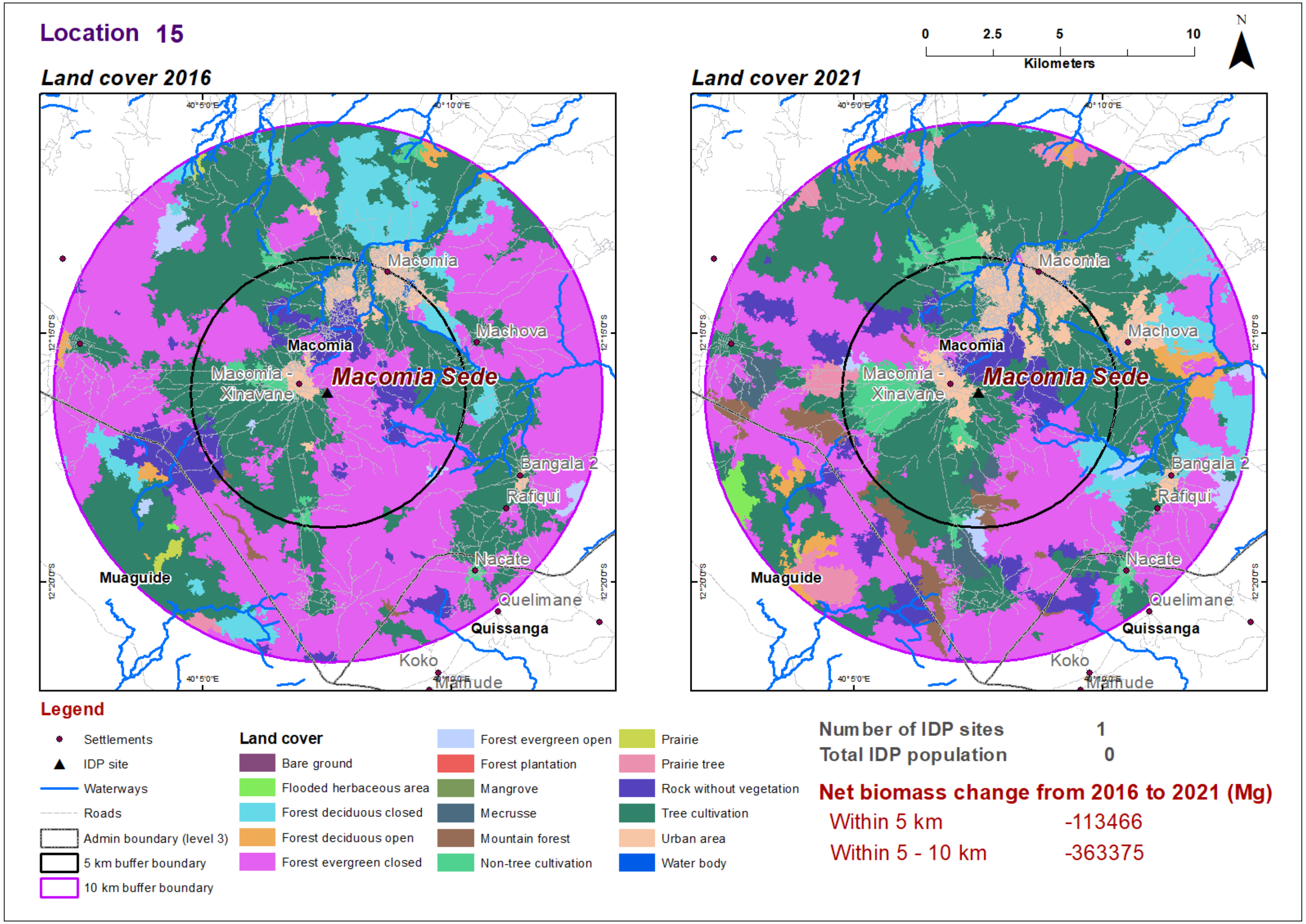

Location 14
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
39°55'0"E
40°0'0"E
40°5'0"E
12°25'0"S
12°30'0"S
Muaguide
Piqueue
Mariria
Muaguide
ADDP
Nguia
Unguia - Nguia
Mitamo
Metamo
Massassi
Massasse
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	1
Total IDP population	0

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-22256
Within 5 - 10 km	87089

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

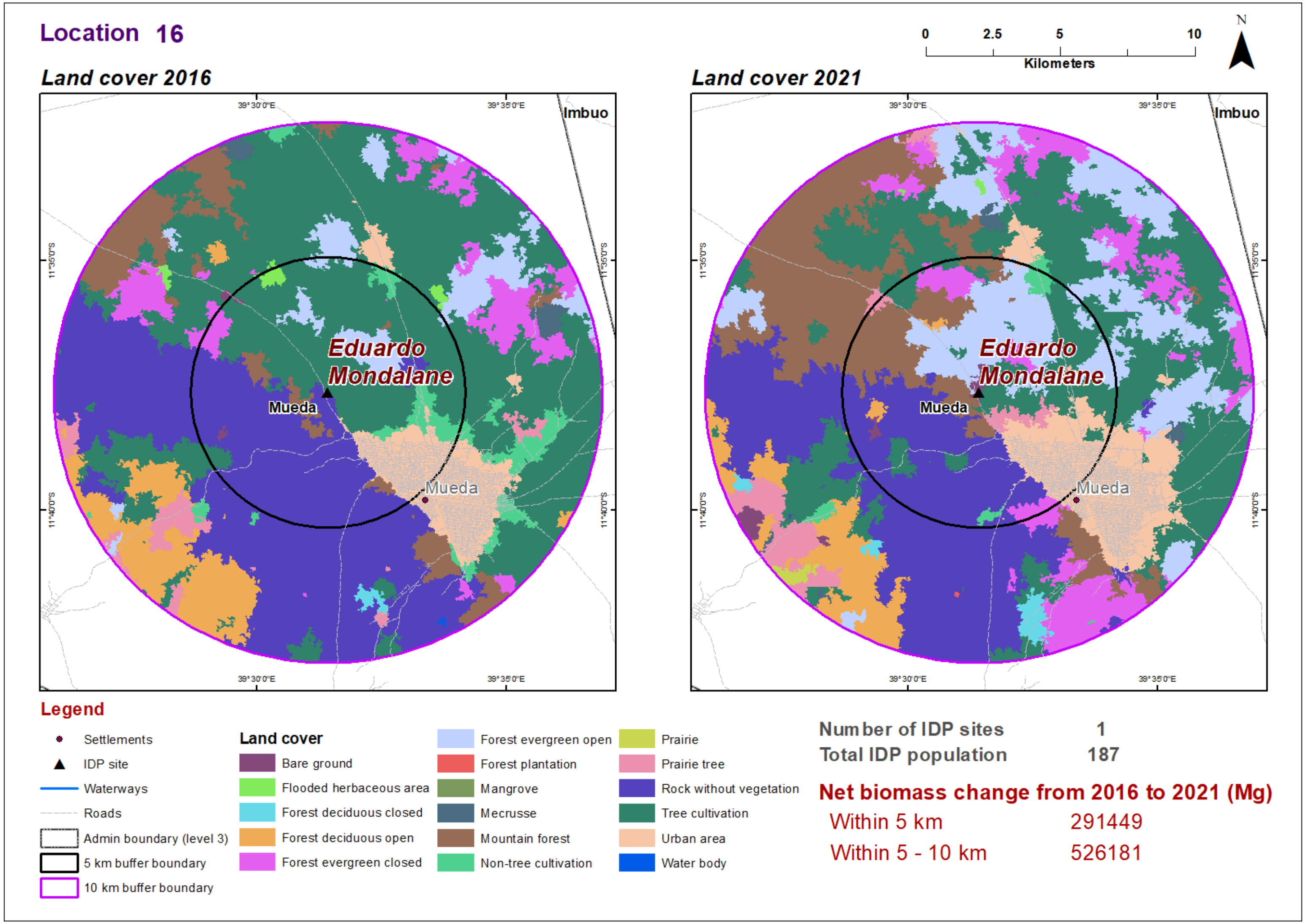

Location 15
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
Macomia
Macomia
Machova
Macomia - Xinavane
Macomia Sede
Bangala 2
Rafiqui
Nacate
Muaguide
Quelimane
Quissanga
Koko
Mahude
40°5'0"E
40°10'0"E
12°15'0"S
12°20'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	1
Total IDP population	0

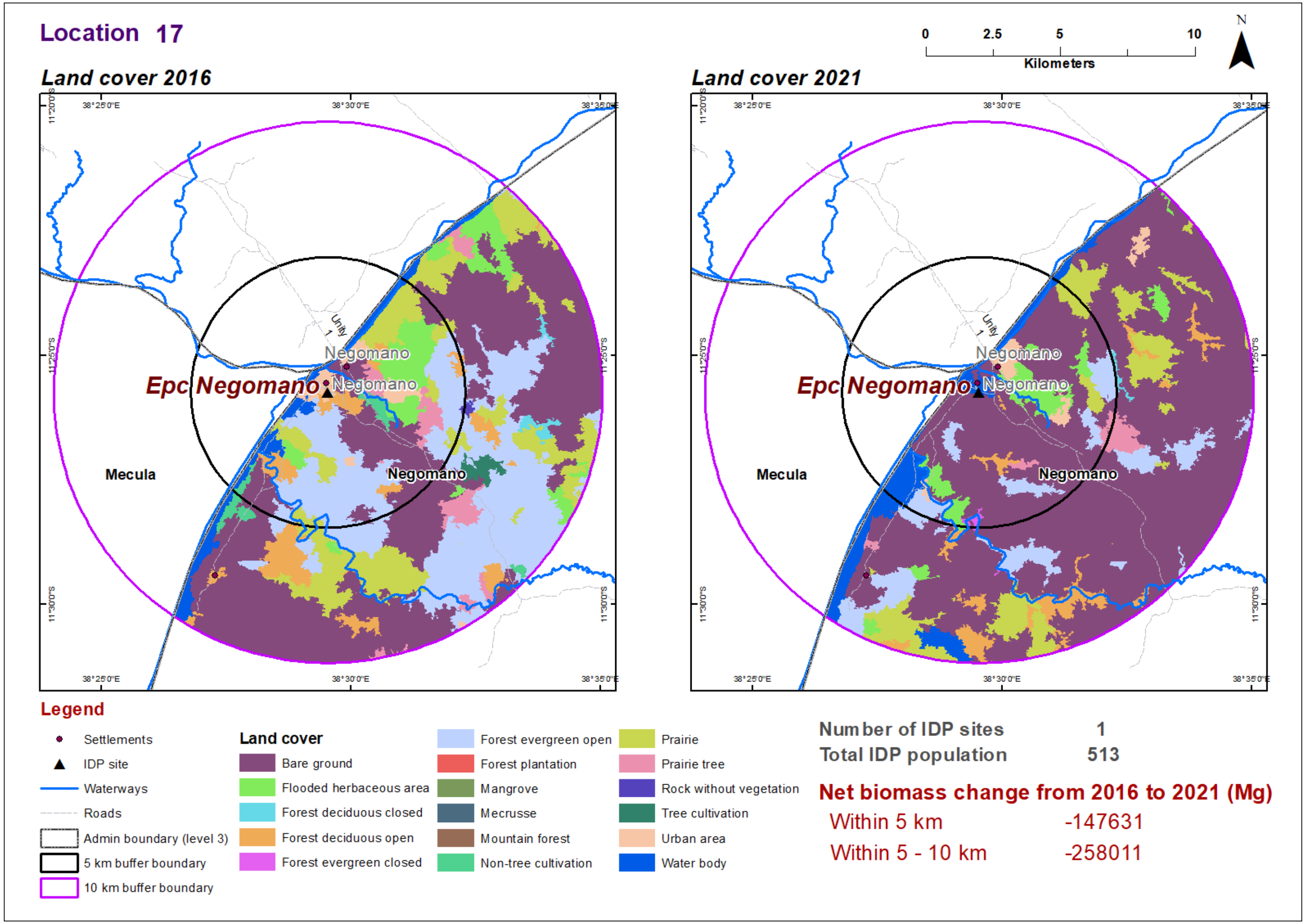
Net biomass change from 2016 to 2021 (Mg)

Within 5 km	-113466
Within 5 - 10 km	-363375

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

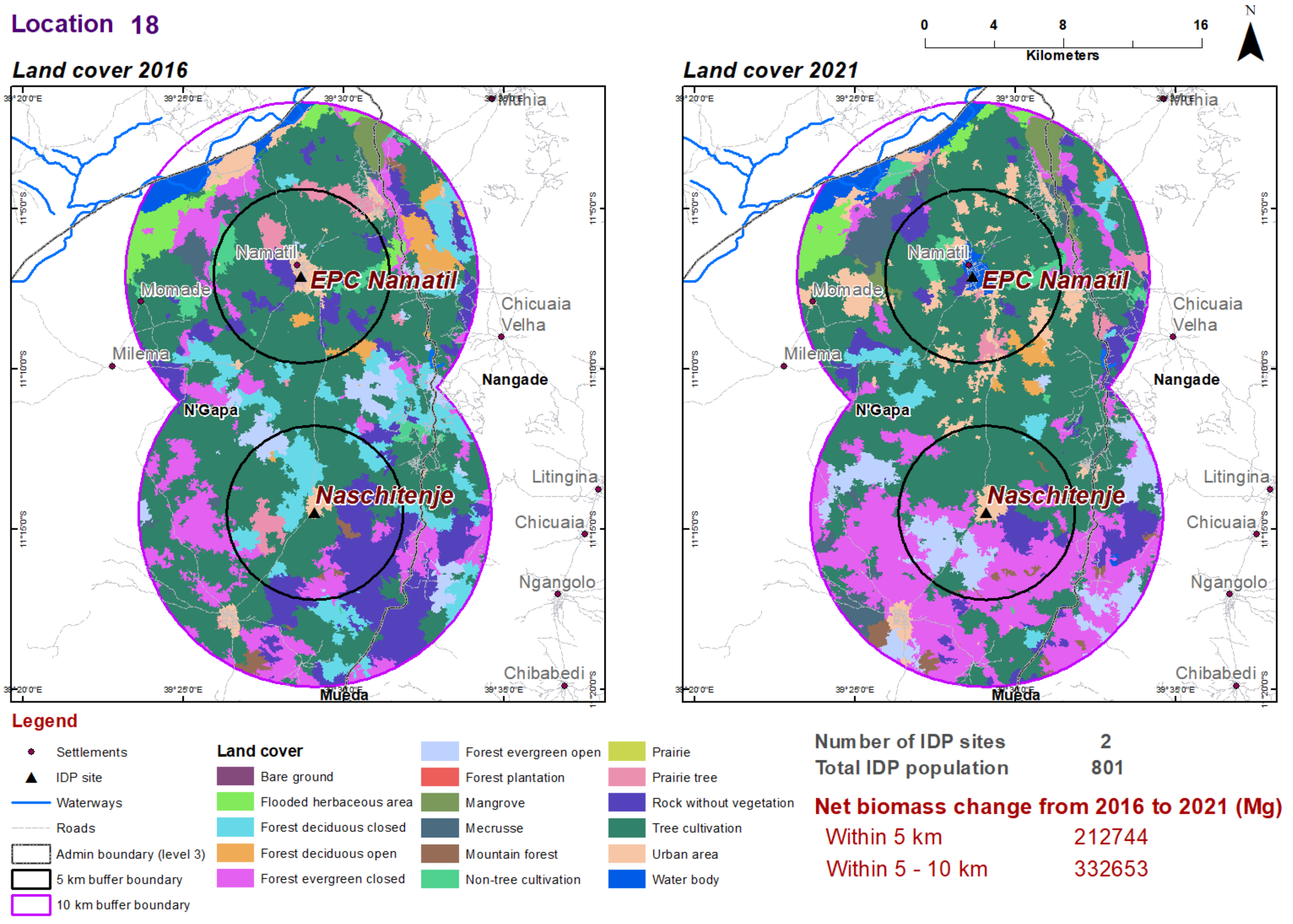

Location 16
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
39°30'0"E
39°35'0"E
11°35'0"S
11°40'0"S
Imbuo
Eduardo Mondalane
Mueda
Mueda
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 1
Total IDP population 187
Net biomass change from 2016 to 2021 (Mg)
Within 5 km 291449
Within 5 - 10 km 526181

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Location 17
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
Epc Negomano
Negomano
Mecula
Unity 1
38°25'0"E
38°30'0"E
38°35'0"E
11°20'0"S
11°25'0"S
11°30'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 1
Total IDP population 513
Net biomass change from 2016 to 2021 (Mg)
Within 5 km -147631
Within 5 - 10 km -258011

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

Location 18


Land cover 2016
Land cover 2021
0
4
8
16
Kilometers
N
39°20'0"E
39°25'0"E
39°30'0"E
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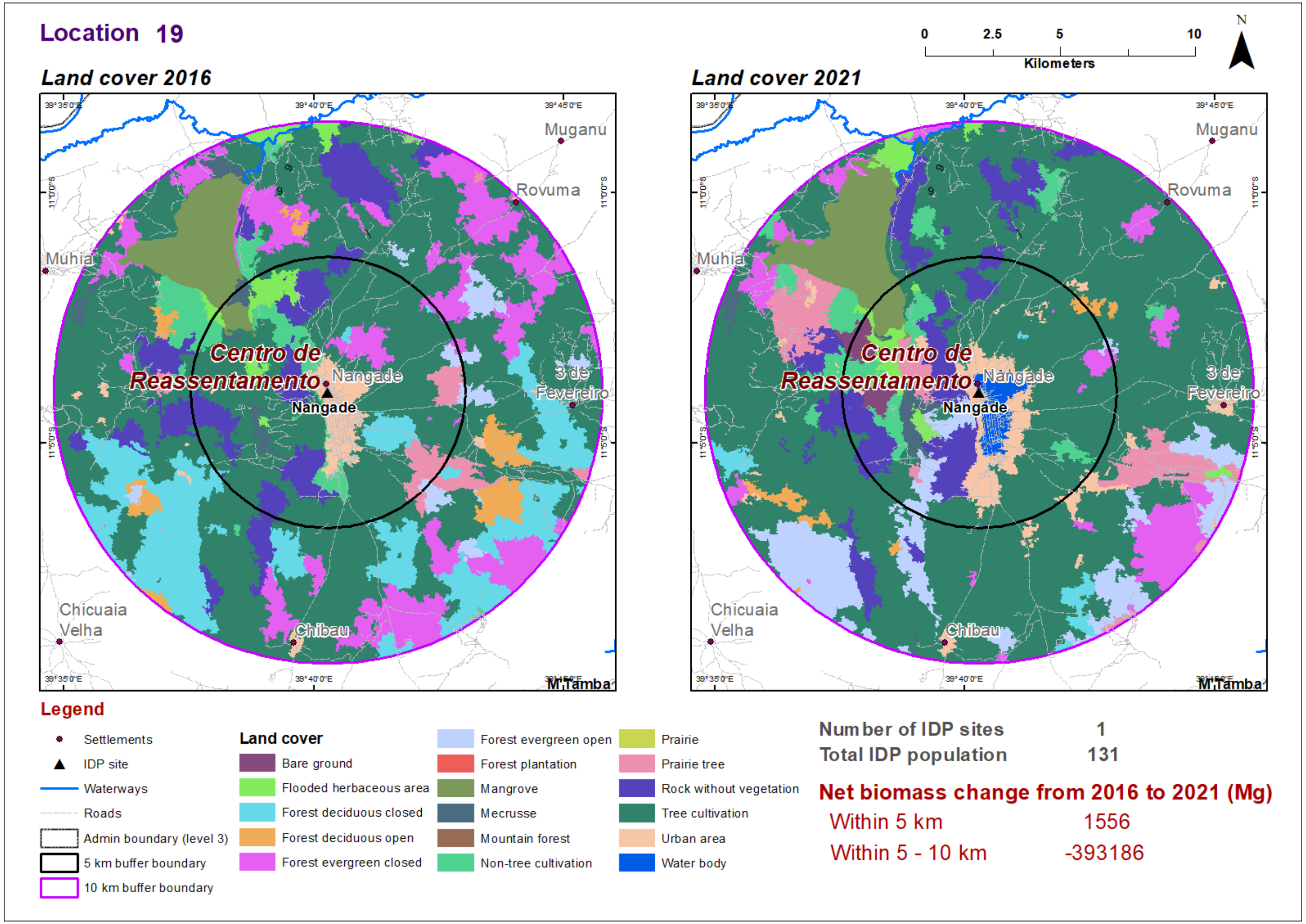
11°5'0"S
11°10'0"S
11°15'0"S
11°20'0"S
Muhia
Namatil
EPC Namatil
Momade
Chicuaia Velha
Milema
Nangade
N'Gapa
Litingina
Naschitenje
Chicuaia
Ngangolo
Chibabedi
Mueda
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body

Number of IDP sites	2
Total IDP population	801

Net biomass change from 2016 to 2021 (Mg)

Within 5 km	212744
Within 5 - 10 km	332653

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021


Location 19
Land cover 2016
Land cover 2021
0
2.5
5
10
Kilometers
N
Muganu
Rovuma
Muhia
Centro de Reassentamento
Nangade
Nangade
3 de Fevereiro
Chicuaia Velha
Chibau
M'Tamba
39°35'0"E
39°40'0"E
39°45'0"E
11°0'0"S
11°5'0"S
Legend
Settlements
IDP site
Waterways
Roads
Admin boundary (level 3)
5 km buffer boundary
10 km buffer boundary
Land cover
Bare ground
Flooded herbaceous area
Forest deciduous closed
Forest deciduous open
Forest evergreen closed
Forest evergreen open
Forest plantation
Mangrove
Mecrusse
Mountain forest
Non-tree cultivation
Prairie
Prairie tree
Rock without vegetation
Tree cultivation
Urban area
Water body
Number of IDP sites 1
Total IDP population 131
Net biomass change from 2016 to 2021 (Mg)
Within 5 km 1556
Within 5 - 10 km -393186

Sources: Administrative boundary: HDX 2021. Mozambique - Subnational Administrative Boundaries. The Humanitarian Data Exchange. https://data.humdata.org/dataset/cod-ab-moz. Accessed on 20 October 2021

A rapid geospatial analysis of Nampula and Cabo Delgado Provinces in Mozambique

Cabo Delgado and Nampula, located in the northernmost part of Mozambique, are among the most unstable provinces in the country and are affected by escalating conflicts and insurgencies, along with climatic shocks, impacting the agricultural sector and livelihoods in the area. In this context, the Food and Agriculture Organization of the United Nations (FAO) conducted a rapid geospatial assessment of Cabo Delgado and Nampula provinces, including the internally displaced population site areas, with a particular focus on key indicators related to access to energy (i.e. biomass), food (i.e., change of agricultural land) and water (i.e. agricultural drought). This assessment identified geographic areas and exposed households that are most affected by the changes in land cover, biomass and drought from 2016 to 2021.

This work aims to support current and future programmes related to improvement of agricultural system as an important prerequisite to improve the food security and minimize conflicts. For further improvement of similar geospatial assessment in the context of Mozambique, recommendations are made including the use of available standard for preparing and collecting data; updating of national data; validation and calibration of results based on ground data; use of high-resolution satellite imagery and latest geospatial technologies; and stakeholder engagement.

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